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UNITED STATES DEPARTMENT OF AGRICULTURE
OFFICE OF COOPERATIVE EXTENSION WORK

WASHINGTON, D. C.

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OFFICE OF COOPERATIVE EXTENSION WORK

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¹ Revised to November 1, 1930.

COOPERATIVE EXTENSION WORK, 1928¹

Prepared by the Office of Cooperative Extension Work
C. B. SMITH, Chief

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INTRODUCTION

Cooperative extension work in 1928 was characterized by the continued attention given to economic matters. Stress was laid upon farm and home management activities without minimizing in any way the help given to increasing actual productive practices. Continued progress was noted in establishing a more satisfying rural life and in creating a more widespread desire for recreation. (Fig. 1.) The 4-H club work of rural boys and girls was emphasized, especially those phases that tend toward human and social development and growth.

The economic studies that have been made by the United States Department of Agriculture and State colleges of agriculture since 1914 formed the basis for many of the cooperative extension activities during 1928. These studies furnished an excellent background of facts for the building of local and state-wide programs. The Bureau of Agricultural Economics continued to prepare and issue agricultural forecasts showing the intentions of farmers to plant and breed that were exceedingly helpful to field workers. A much larger number of meetings were held with farmers to acquaint them with these forecasts than ever before. Extension workers are becoming more familiar with the interpretation of these reports and are seeing their responsibility more fully in familiarizing the farmer with what the department and the agricultural colleges have to offer.

The Extension Service continued to lay emphasis on the need for economic extension work in 1928. Representatives of the extension

¹ Funds for extension work are appropriated for fiscal years ending on June 30, whereas extension agents prepare their reports for calendar years. For this reason, statements of funds expended are given for the fiscal year ended June 30, 1928, and results of work done for the calendar year ended December 31, 1928.

NOTE.—Cooperative extension work in agriculture and home economics, authorized by the Smith-Lever Act of May 8, 1914, is carried on cooperatively by the United States Department of Agriculture and the State agricultural colleges. This report was written and printed in accordance with a provision of the act of Congress of March 4, 1915, entitled "An act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1916" (38 Stat. L. p. 1110); also in accordance with the Smith-Lever Act, section 7, which requires "that the Secretary of Agriculture shall make an annual report to Congress of the receipts, expenditures, and results of the cooperative agricultural extension work in all of the States receiving the benefits of this act."

service of all the States were invited by the Federal Department of Agriculture to sit in with its committees and take part in the development of the National Agricultural Outlook, published in February, 1928. Some 26 representatives from 21 States took advantage of this invitation and took part in the development of the outlook. Following the national outlook conference, about 27 States developed State agricultural outlooks. The agricultural outlook and the data on intentions of farmers to plant and to breed that supplement the outlook are recognized as new ventures in the economic field, requiring a considerable period of time for the public fully to understand their teachings and to apply them to the farm in a helpful and intelligent manner. Such information is believed, however, to be basic in any conscious attempt by the farmer to adjust production to consumption needs.



FIGURE 1.—A satisfying farm home

An examination of the extension reports of county agents and specialists for the 5-year period 1924 to 1928 shows that only about 4 per cent of the total extension time, on the average, of these agents was devoted to extension work in agricultural economics. The States of New York, Ohio, Indiana, Iowa, Illinois, and California have done outstanding extension work in the economic field, and the work is well started in many other States.

Cooperative studies of the effectiveness of extension and the relative efficiency of the various methods, means, and agencies used in extension were continued during the year in Michigan, Rhode Island, and Illinois, with results similar to those previously reported.

An interesting phase of the year's studies was a comparison of age groups of farmers, as related to the changes in farm and home practices made. Table 1 shows the results obtained for 1,636 farmers and the adoption of agricultural practices,

TABLE 1.—*Relation of age of farmers to adoption of agricultural practices*¹

Age group	Num- ber of farms	Percent- age of farmers adopting agricul- tural practices	Number of agri- cultural practices adopted per 100 farms	Age group	Num- ber of farms	Percent- age of farmers adopting agricul- tural practices	Number of agri- cultural practices adopted per 100 farms
30 years and under....	147	76	283	46 to 50 years.....	216	72	280
31 to 35 years.....	175	77	249	51 to 55 years.....	190	76	275
36 to 40 years.....	232	77	301	56 to 60 years.....	167	71	257
41 to 45 years.....	233	79	293	61 years and over....	276	66	217

¹ Survey included 1,636 farmers.

The table seems to show that the man 50 to 55 years old in these studies was just as likely to adopt a new practice as was the man 30 years old or younger.

These data are contrary to the usual views held. They seem to hold for women as well as men, as indicated in Table 2.

TABLE 2.—*Relation of age of farm women to adoption of home-economics practices*¹

Age group	Num- ber of farm women	Percent- age of farm women adopting home- economics practices	Number of home- economics practices adopted per 100 homes	Age group	Num- ber of farm women	Percent- age of farm women adopting home- economics practices	Number of home- economics practices adopted per 100 homes
30 years and under....	235	28	72	46 to 50 years.....	224	28	86
31 to 35 years.....	211	41	125	51 to 55 years.....	136	27	60
36 to 40 years.....	251	35	100	56 to 60 years.....	150	26	68
41 to 45 years.....	216	35	90	61 years and over....	144	17	63

¹ Survey included 1,568 farm women.TABLE 3.—*Percentage of time devoted to work with juniors and adults by all extension workers in 38 States*

Class of extension worker	Percentage of time devoted to work with—	
	Juniors	Adults
County agricultural agents.....	<i>Per cent</i> 25.16	<i>Per cent</i> 74.84
Home demonstration agents.....	42.49	57.51
Club agents.....	92.30	7.70
Agricultural specialists.....	15.86	84.14
Home-economics specialists.....	20.28	79.72
Total of all workers.....	31.97	68.03

Special studies carried on during the year with the assistance of Director H. J. Baker, of New Jersey, provided for the first time information on the proportion of extension funds expended upon the various teaching means and agencies. From these studies it would appear that, as agricultural and home-economics extension work is now conducted, about 36.9 per cent of extension moneys are spent on method and result demonstrations and leader training, resulting in about 28.6 per cent of the improved farm and home practices obtained. With the expenditure of 13.7 per cent of extension moneys, in the

studies made 15.4 per cent of changed practices were effected by farm and home visits. Ten and one-half per cent of the money spent on general meetings resulted in 18 per cent of the changed practices obtained. Six per cent of extension funds spent on the distribution of bulletins in the studies made gave 8.6 per cent of the total measurable results. Four and three-fifths per cent of extension funds spent on the news service gave 12.8 per cent of the changed practices obtained. These and many other data obtained are more fully recorded in Technical Bulletin 125.² This type of information gives the extension service a clearer idea than ever before of the relationship between expenditures and extension accomplishments.

Another study relating to the proportion of time given by extension agents to the promotion of boys' and girls' 4-H club work in the different States shows average results from 38 States, as appear in Table 3.

The 4-H club movement progressed satisfactorily in 1928. The annual encampment held on the grounds of the Department of Agriculture in Washington was well attended and evinced a commendable spirit of cooperation. Thirty-nine States sent 219 representatives to the meeting, these being outstanding 4-H club boys and girls and their club leaders. The usual conference on the conduct of club work was held, and addresses were delivered by prominent educators and men identified with national affairs. The recreational features of the camp were enlarged over those of the previous year, and a wider field for sight-seeing excursions was undertaken. G. E. Farrell, regional agent for the Central States, again served as camp director and was assisted by other members of the Federal office staff. The State club leaders who attended the meeting from the various States represented also assisted in all the work.

FUNDS AND STAFF

The expenditures from all sources for cooperative extension work during the fiscal year ended June 30, 1928, amounted to \$21,083,326, which was \$564,332.49 more than the amount expended in 1927. Of the sum expended in 1928, \$20,677,423.66, or 98.1 per cent, was spent in the States and \$405,902.34, or 1.9 per cent, in the administrative activities of the Federal office in Washington, D. C. Approximately 35.3 per cent of the total funds was from Federal sources, 29.5 per cent from State sources, 29.5 per cent from county appropriations, and about 5.7 per cent from local organizations and individuals. The total expenditure for county extension agents was \$12,816,555.45, or 60.8 per cent; for State subject-matter specialists, \$4,176,559.71, or 19.8 per cent; for administration and supervision in the States, \$3,684,308.50, or 17.5 per cent.

All but 2 of the 48 States expended their entire allotments of Federal Smith-Lever and supplementary funds during the year, New York having an unexpended balance on June 30, 1928, of \$1,204.39, and Oklahoma an unexpended balance of 60 cents.

An event of substantial importance during the year was the enactment of a Federal law, supplementary to the Smith-Lever Act and popularly known as the Capper-Ketcham Act. This act increased

² BAKER, H. J., and WILSON, M. C. RELATIVE COSTS OF EXTENSION METHODS WHICH INFLUENCE CHANGES IN FARM AND HOME PRACTICES. U. S. Dept. Agr. Tech. Bul. 125, 31 p., illus. 1929.

Federal funds in support of cooperative extension work along the same lines as the Smith-Lever Act itself. The Capper-Ketcham Act provided \$20,000 additional funds July 1, 1928, to each State and the Territory of Hawaii. This is a flat sum and requires no State offset. The second year, and annually thereafter, \$1,480,000 may be appropriated under the act, \$500,000 of which is distributed to the States and Hawaii in the proportion which the rural population of each State and Territory bears to the total rural population of the United States. This additional \$500,000 over the initial allotment to the States must be offset by the States, dollar for dollar.

The Capper-Ketcham Act requires that 80 per cent of the Federal funds available under the act be spent for salaries of county extension agents for extension work in agriculture and home economics with

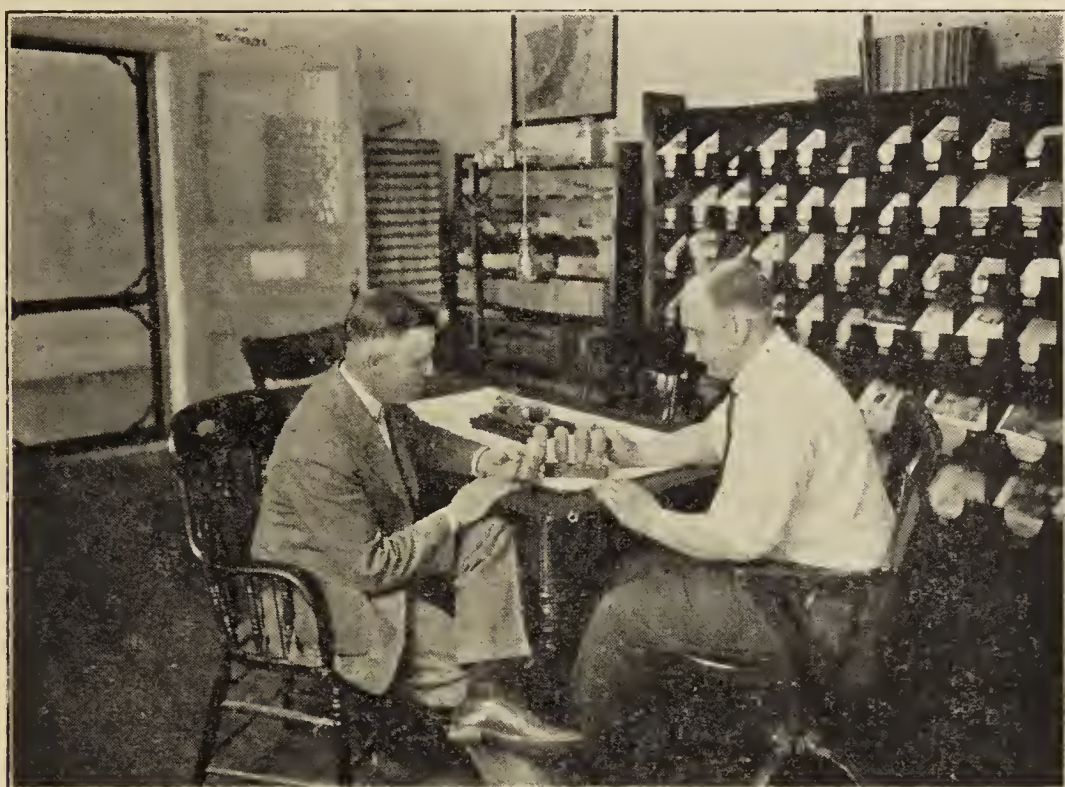


FIGURE 2.—A county agricultural agent's office. Notice the convenient arrangement for displaying bulletins

men, women, boys, and girls. The employees paid for from these funds must be men and women in fair and just proportions, and the provision in the original Smith-Lever Act prohibiting the use of any funds in promoting agricultural trains is waived in the Capper-Ketcham Act.

The esteem in which cooperative extension work as a whole is held by the people was shown by the indorsement of the act by some 19 national farmers' associations and over 100 State associations. The National Committee on Boys' and Girls' Club Work, the Association of Land-Grant Colleges and Universities, and the General Federation of Women's Clubs were active in promoting the passage of the act. It is expected that the funds under this act will be especially effective in the promotion of boys' and girls' club work and home demonstration work. (Fig. 2.)

On June 30, 1928, there were 5,161 persons employed on the field staff in the 48 States, an increase of 106 during the year. Of these,

2,187 were white county agricultural agents, 131 assistants, and 160 negro county agents; 912 white county home demonstration agents, 6 urban home demonstration agents, 23 assistants, and 108 negro home demonstration agents; 136 county boys' and girls' club agents and 12 assistants; and 482 supervisors and administrative officers. There were 1,004 subject-matter specialists employed to assist the county extension agents with their specialized problems. Thirty-five county agricultural agents and 16 assistants, 25 county home demonstration agents and 4 assistants, 27 subject-matter specialists, and 7 supervisors were added during the year, while the number of county boys' and girls' club agents was reduced by 8. County agricultural agents were employed in 2,256 of the 3,072 counties and county home demonstration agents in 1,041 counties. This was an increase of 65 counties with agricultural agents and 91 with home demonstration agents during the year.

In cooperation with the Bureau of Agricultural Economics, B. B. Derrick was employed on July 1, 1927, as extension specialist in cooperative marketing. R. G. Foster, field agent in club organization for the Eastern States, was on furlough during the greater part of the year for advanced study at Cornell University. Florence L. Hall was appointed on May 16, 1928, as extension home economist in the Eastern States. O. B. Martin, who was in charge of extension work in the Southern States, became director of extension work in Texas, February 1, 1928. The work in the South was placed in charge of J. A. Evans, then assistant chief, on that date. G. H. Collingwood, extension forester, resigned June 25, 1928, to accept a position with the American Forestry Association. W. R. Perkins, extension director in Louisiana, resigned June 30, 1928, and was succeeded by W. B. Mercier. In Texas, C. H. Alvord resigned as extension director on November 30, 1927, and was succeeded by O. B. Martin.

EMERGENCY ACTIVITIES

The breaking of the St. Francis Dam in California in March, 1928, called into activity the full force of the Extension Service located in that area. The break released a flood that covered more than 10,000 acres of farming land in Ventura County. Within 40 hours after the Governor of California issued a call for help, 21 men of the staff of the California Extension Service were at work in Ventura County on the task of determining the amount of agricultural damage caused by the breaking of the dam. When notified of the emergency assignment, the county agents, who were called upon speedily, made arrangements to have their regular county work taken care of in their absence, and proceeded to the headquarters in Ventura County to render what aid they could. The function of the extension agents was only to determine as closely as possible what damage had been done to agriculture, the translation of the facts into terms of money being left for other agencies. The inspection showed that damage had been done to fruit, vegetables, and other perishable crops. The emergency work received the sympathetic cooperation of the Ventura farmers, who appreciated the aid given by the cooperative extension service.

Vigorous relief measures were also put into effect by cooperative extension to aid farm families after the tropical hurricane that devastated Florida in August and September, 1928. Extension agents

advised farmers in seed selection for new plantings, directed proper cultural practices for crops that would mature quickly, and endeavored to assist in obtaining emergency labor to help on the farms. They aided in organizing community and county loan associations and in many other ways helped farmers to resume the routine of their crop operations. Home demonstration agents aided greatly in rehabilitating the farm homes that had been wrecked in the storms. They gave demonstrations in refitting for future use whatever damaged furniture was capable of being used and in general aided families in making their homes livable again.

In the Mississippi Valley, where a previous flood had caused immense damage, the extension service continued to give aid in further rehabilitating the farming people. A widespread area of devastated farms still existed in 1928, and this condition made it necessary for emergency extension activities to continue for a while.

In many cases where funds had been depleted for county agent work, expenditures from other sources for county agricultural agents, county home-demonstration agents, and negro agents were made. An act of Congress was passed in May, 1928, authorizing this expenditure of Department of Agriculture funds to the amount of \$400,000 for the employment of emergency agents. With such an amount in hand, the Extension Service appointed new extension agents for the flooded area as rapidly as possible.

Continued efforts were made throughout the year to place the devastated farms on a self-supporting basis. The service assisted the American Red Cross in distributing improved varieties of garden seed, soybeans, and cotton. By the end of the year the results obtained showed clearly that the cooperative extension service had been helpful and that the work had been done so that great permanent benefits to the areas involved will result.

The Extension Service continued its corn-borer demonstrations in Michigan, Indiana, Ohio, Pennsylvania, and New York during 1928. During the spring of that year demonstrations were held to help in effective control methods, such as plowing and burning stalks, and many illustrated talks were given at community meetings regarding proper methods of procedure. The cooperative extension forces also conducted tours for farmers to heavily infested areas for study of conditions and control measures. Bulletins, circulars, lantern slides, and posters were distributed to the best advantage. The daily and weekly papers used a large quantity of material as news items prepared in the office of cooperative extension. The educational campaign which was begun as an emergency measure was gradually absorbed during the year in the regular program of extension activity as conducted by the Cooperative Extension Service of the department and the State agricultural colleges.

METHODS OF TEACHING

In 1928, as in the preceding year, an effort was made to reach more people. Extension specialists at the college, as well as county agents, have given evidence of this effort through the simplification of methods and the isolation of some important or key practice that would extend one feature rather than a combination. For example, the treatment of wheat to prevent smut in many of the States has been singled out

for emphasis, and every means and agency that could be brought to bear to popularize the practice has been used, rather than selecting so many features for improving the wheat crop, such as seed purity, seed selection, fly-free dates for seeding, and quantity and formula of fertilizers.

In 1928 inquiry was made of agricultural and home demonstration agents in 12 States as to what practices had been generally accepted by the farmer and home maker. Their replies all indicated that those which were single and easily put into effect were those generally adopted. These practices are such as the following:

- Feeding dry mash to poultry.
- Treating seed potatoes.
- Use of vegetables in the diet.
- Withholding irrigation water to develop root system of lemon and orange trees.
- Guide patterns.
- Vaccination of chickens against pox.
- The use of one variety of cotton.
- Hog-cholera immunization.
- Testing seed corn.
- Liming soils.

The same agents were requested to state what practices they thought should have been accepted but had not been accepted to any great degree. Among these were:

- Child feeding.
- Farm accounts.
- Cooperative marketing of livestock.
- The use of purebred sires.
- Hog-lot sanitation.
- Feeding balanced rations.
- Home beautification.
- Reorganizing farm program.
- Cow testing.
- Pasture improvement.
- Meal planning.
- Crop diversification and rotation.

Any one of these requires a long period and great determination. These are all made up of several practices and are somewhat complex.

The acceptance of the single practice was brought about largely for two reasons. First, the want to do it grew largely out of an economic necessity, either to make more money or to save the industry from extinction. In some cases the want has been established upon the desire for longer life and better health. This is true particularly of practices having to do with human nutrition. The second reason may be that fixed habits of thought and action can be more easily overcome and a new habit formed when the doing of the new practice, or the details to be kept in mind, are so simple that slight effort is required to make the change.

The reason for the general nonacceptance of complex practices would seem to be that it is difficult to make the desire strong enough to overcome the fear of involved details. It is probable that these complex practices can be accepted only by people who have a large degree of initiative and strength of imagination. They may be looked forward to in a new generation of young people whose early practices may be established before antiquated practices have had a chance to be accepted.

The indications are that the general interest of farming people will be aroused more quickly through the acceptance of a single practice than of complex ones.

Even the single practices were presented first by demonstrations to reach as many as possible of those who seemed most seriously to realize the need for the new practice. Meetings were held where the results were presented by word of mouth. Newspaper items and circular letters reached subscribers and other persons on the county agent's mailing list. In many instances brief radio talks were given. The farm bureau, grange, and various commodity organizations discussed the benefits. The same story, in effect, was told by these various means and agencies, because it was known that through the cumulative effect of transmitting this information in various ways and because of various appeals, some can be stimulated to accept at one time because of one means or agency, and others would accept some other means of transmission.

Acceptance could not result without appeals that set up a desire or want for the practice. In most cases where dollars and cents, or the extinction of the industry, played an important part, an economic appeal was made, but where life and its prolongation were paramount, an appeal of that nature was made. This was found true in practically all of the nutrition practices. An appeal to the ego—personal appearance, personal pride, recognition by other people—was used especially in home beautification and clothing. The success of leading farmers was pointed to as an example for imitation. This is one of the outstandingly strong appeals that has been made by agents and specialists everywhere. The initial demonstrators, besides being appealed to by the usual methods, were willing to show to neighbors and friends that the newer practices were being demonstrated for their benefit as well as for their own. It has been found that it is not only the major means and agencies that must be used, but even minor ones thrust themselves upon the vision of the casual observer to remind him once more that the new practice is still for his consideration.

The means for disseminating lessons taught by the simple demonstrations were those which reached the masses. The circular letter, the newspaper item, the group meeting, and in some instances the radio, folders, and printed circulars were extensively used. These are the agencies also which people are most likely to be aware of, because they have the habit of reading newspapers, attending meetings, and listening to the radio. They are also more likely to read a folder or printed circular, or a circular letter written in a lively style than they are to read bulletins and other publications that treat the subject more fully.

The outstanding improvements of the year were in the type of news items and the brief and well-written circular letter. Exhibits, posters, motion pictures, lantern slides, and even the radio in some instances, were used as accelerators to attract attention. A number of short dramas carrying important lessons were staged in rural communities, and even the crossroads local news reporter included extension news with his items to the effect that Jones or Brown had painted his barn.

In nearly every State conference of extension workers, from one to four periods were given to discussion of methods of teaching adults.

In one State not a single discussion in three days was given to subject-matter. All discussions applied to methods of teaching, the improvement of letters, and the theory of making impressive talks. This feature of all the extension conferences has been gradually increasing since about 1924.

VISUAL INSTRUCTION AND EDITORIAL WORK

PUBLICATIONS

In the field of publications there was noted in 1928 an increase in the number of circulars and leaflets from 4 to 16 pages in length, issued by State extension divisions. The effort was also made in a number of States to popularize annual-report material either by putting the report itself in more popular form or by issuing supplementary circulars containing the important facts regarding the service given by the State extension divisions. The written presentation of subject matter, the use of illustrations, and the general make-up of extension publications continued to show material improvement. There were 5,608,604 publications distributed by county extension agents during 1928.

During the year, the State extension divisions published in the interests of extension work, 1,437 printed documents, consisting of 183 bulletins, 330 circulars, and 924 miscellaneous publications. The office contributed 29 mimeographed circulars to the extension service series of circulars and issued 93 miscellaneous duplicated publications on various extension subjects.

In developing the news service in relation to extension work in the counties, extension editors and other supervisory officers of the State extension divisions continued to give assistance to county extension agents in developing news material. Through personal visits, discussions at annual and district conferences, and correspondence, individual agents were helped in making contacts with local newspaper editors and in organizing suitable news material for publication. One of the newer features of this instruction work was the holding of information or news-service contests for county extension agents, covering the period of the calendar year and culminating at the annual conference. In some contests only contributions to newspapers were entered, and in others there were separate classes for circular letters, photographs, and campaign material. County extension agents reported preparing 371,331 news stories for the press during 1928.

A record of the total number of news articles prepared by State extension divisions is not available. In making material on extension work nationally available for press use, the Office of Cooperative Extension Work cooperated with the press service in assembling and preparing 126 articles for the Official Record and for press release.

VISUAL PRESENTATION

In the development of visual presentation, efforts were made in a number of States to organize more effectively the staging and taking of photographs of extension activities and for extension instruction in subject matter. A new type of field photographic work was developed by the department Office of Cooperative Extension Work in cooperation with the Maryland and Virginia Extension Services. Series of photographs covering the production and marketing, or both phases,

of several farm products were outlined and photographed. The series taken in cooperation with Maryland included the production and marketing of eggs, apples, tomatoes, milk, and hogs, and a special series on home management. Those taken in cooperation with the Virginia Extension Service dealt mainly with the marketing of eggs, apples, tomatoes, and peanuts, although the production of these crops was to some extent illustrated.

Lantern slides were reported as having been used by county extension agents at 7,326 meetings. Interest on the part of extension agents in the use of film strips became more general during the year and was further encouraged by the policy adopted by the Office of Cooperative Extension Work of reproducing in film-strip form practically all new slide series issued by the department. Arrangements were also made by this office whereby the department contract with a commercial firm for the making of film-strip negatives and prints was made available to State extension divisions.

Continued use of department motion pictures was made by county extension agents during the year, approximately 2,755 shipments having been made by the office of motion pictures to extension agents. The number of extension meetings at which motion pictures were shown was 21,148. During 1928 the department produced 17 new pictures including among others, the following titles: Cooperative Marketing, Carry On!, What's Ahead, T. B. or Not T. B., The Forest and Wealth, Moths and Man, Wild Flowers, and The Beefsteak Bequest.

Extension attention as usual was devoted to a considerable extent to the presentation and display of exhibits at community, county, State, and interstate fairs. There was a decided tendency during the year, however, to encourage community groups or organizations, both adult and junior, to present definite phases of extension activities in exhibit form at county fairs. These exhibits were frequently supplemented by a series of demonstrations in practices in which the members of these groups had become proficient. The home-demonstration groups and 4-H clubs in particular excelled in this type of work. The department office of exhibits cooperated with the Office of Cooperative Extension Work and the State extension divisions in the presentation of exhibits covering various extension activities, particularly those relating to 4-H club work at State and interstate fairs. One special exhibit on 4-H club work was prepared for use at the Eastern States exposition.

In connection with the visual service which it rendered to the field, the Office of Cooperative Extension Work in 1928 cooperated with State extension divisions in taking a total of 2,241 field and 146 laboratory photographs. Fifteen States were visited by the personnel of the visual instruction and editorial division of the office for the purpose of giving instruction at extension conferences in methods of extension photography and the use of visual aids. More than 10,555 prints, slides, enlargements, charts, posters, and drawings were requested and prepared for use in extension work through the Office of Cooperative Extension Work. There were 7 lantern-slide series and 8 film-strip series prepared for extension use. In addition 2 lantern-slide series previously prepared were revised.

RADIO

There was some development in the use of commercial stations by the State agricultural colleges during the year, although there was no material change in the number of institutions maintaining their own stations. It is evident that the use of the radio in extension teaching was still in a preliminary stage and that the whole situation was more or less dependent on the way in which the organization of radio broadcasting worked out under the Radio Commission.

One of the features of the year was a national hook-up of 21 broadcasting stations, which was arranged in connection with the National Club Camp in Washington on the night of June 23. This experi-



FIGURE 3.—A farm family listening in on a 4-H club radio program

mental broadcast proved to be very popular, and telegrams and letters were received from hundreds of club members and leaders in the United States commenting on the program. During the spring, the Office of Cooperative Extension Work cooperated with the Radio Service in supplying special material on the control of the corn borer, which was released to broadcasting stations in the corn-borer area during the period of nine weeks beginning in March. On October 1, 1928, an experimental service in 10 monthly programs relating to 4-H club work was begun. This feature was sent out under the title of "4-H Club Crier" and was included in the programs of approximately 68 stations. A number of radio talks of national interest from an extension standpoint were also prepared and given by members of the Office of Cooperative Extension Work in connection with the department's series of noon-hour radio programs. (Fig. 3.)

COUNTY AGRICULTURAL AGENT WORK

County agricultural agents reported 33,385 rural communities in which organized extension work was carried on according to a definite program. More than 500,000 members of adult clubs helped to formulate the programs and worked to put them into effect. County agents were aided in the supervision of the extension activities of these communities by 129,070 leaders in the adult work and 34,009 leaders of the boys' and girls' 4-H clubs, who volunteered their services in putting into effect the local programs adopted.

As part of their community programs adult farmers and farm women conducted 376,647 result demonstrations in agriculture and home economics under the supervision of county agricultural agents. Through field meetings, observation tours, news items, and other



FIGURE 4.—Counties having county agricultural agents June 30, 1928, are indicated in black

agencies the results of these demonstrations were brought to the attention of the public. County agricultural agents held 366,247 meetings, with a reported attendance of more than 14,646,675 persons to discuss the results of demonstrations and to present information supplied by the State agricultural colleges and experiment stations and the United States Department of Agriculture. Such information was further extended by agents through the distribution of 3,723,388 circulars and bulletins, the preparation of 275,821 news articles for the press, and the holding of 192,615 field meetings.

County agricultural agents advised 68,162 farmers in the formation of cooperative-marketing associations, which did a business of \$19,013,245 during the year. These new organizations brought the total membership in all such associations with which the agents cooperated to 454,599 farmers, who did a business of \$231,016,556. The savings made by farmers through membership in cooperative-marketing associations was reported to be \$3,582,287 and their profits \$10,478,769. (Fig. 4.)

PERSONNEL

The number of county agricultural agents and assistant agents employed on June 30, 1928, was 2,478, an increase of 51 agents over the previous year. Of more significance than this increase in the number of agents was the definite tendency in all sections of the country to look upon county agricultural agent work as an essential and permanent part of the governmental service to an agricultural county. In counties where vacancies occurred through resignation, the extension organization of the county and supporting communities of local farmers and business men as a rule took the initiative in seeking the cooperation of the State extension service in obtaining a competent agent to fill the vacancy. It is evident that the resignation of a county agricultural agent is no longer the signal for holding a referendum on the continuance of the work. County agricultural agent work had become in many counties a well-understood and established service. When a vacancy occurred, the question was, "How soon can the position be filled by a competent man?" and not "Shall the work be continued?" There were, of course, many counties in which the work still was on a somewhat experimental basis, where the highest type of agent was difficult to obtain and to hold. The number of these counties was lessening, according to the reports received from all sections for 1928.

Another factor in making county agricultural agent work generally satisfactory was the increase in 1928 of the practice of employing assistant agents in a number of counties in a State. This practice developed largely from the demand in these counties for more service than one agent could render. The assistant agents by virtue of the practical training they have received have become the logical successors of agents resigning in other counties. When advanced to such a position, the assistant agent usually shows a capacity for taking up promptly the work of his predecessor and continuing without serious interruption the extension program for the county. This practice has already had unquestioned influence in stabilizing and unifying the county agricultural agent work of the various States.

PROGRAMS

Perhaps the most significant development of the year was the progress made in determining long-time agricultural programs. Program making in 1928 was characterized by a search for facts along three lines. The older method based its recommendations largely on the group of facts, viz, present production practices and how they might be bettered. The newer type of program effort sought first to find what the present organizations of farm enterprises were, how they were managed, and what was the prevailing income of farmers in the most general types of farming. For example, the small dairy farmer predominated in much of the East. Farm accounts, farm surveys, and enterprise cost accounts showed that he had about 6 cows, 50 hens, a few acres of cash crops, and with some outside labor, eked out a gross income of \$1,500 or so. Manifestly he needed to enlarge his enterprises or add other enterprises that his income might be doubled or increased even more.

Then county agents and specialists studied the market and population situations of the district, statistics on competing areas, and short-

ages or surpluses that existed, in order to determine what expansions, decreases, or changes in the size and nature of the various farm enterprises should be recommended. If the market for fluid milk was there, if the farmer had feed and labor, if he could make changes in equipment without too much outlay, then he might be told to consider a program of expansion, viz, to milk 12 cows, to keep 300 hens, and to increase his cash crops. This became the long-time program of readjustments, based on raising the income of the farmer by adjusting the size and nature of his output to meet present and future opportunities and demands.

With the facts in his possession, the extension agent was ready to draft the current extension program. The projects outlined should be such as would help the farmer to make his readjustments successfully, and to operate each enterprise most effectively. Thus the poultry program might be changed from one that emphasized culling, breeding, caponizing, and feeding to one that would teach the farmer how to build a brooder house, to rear 500 or more chicks, to build or remodel a poultry house, to manage his flock of pullets, to get the maximum of winter eggs—in short, to change the poultry enterprise from a farm flock to a commercial unit of profitable production. Similarly, the farmer would be interested in a program of how to buy or raise good cows inclusive of such phases as remodeling barns, growing legumes, sanitary milk production, and calf rearing.

In the Eastern States—New York, Vermont, Maine, Connecticut, Massachusetts—agents led in this development. The highest development was found in 1928 in such readjustment programs as were developed for Seneca and other counties in New York. There the effort was made to readjust and redirect almost the entire farming system of the county.

The development of the long-time program in the Central States is well illustrated by a series of agricultural adjustment conferences which were held in each of the eight farming-type areas of Illinois to review agricultural conditions and to consider possible adjustments which might lead to better-paying farming and more satisfying home life. Nearly 1,000 farm men and women delegates attended these meetings. Discussions at each of the conferences were organized under the heads of 11 committees on the following subjects: Field crops, meat animals, poultry, dairying, horticulture, farm organization and management, mechanical equipment, drainage and farm buildings, agricultural cooperation, community development, and farm and home development. Each of these committees had as members, one farmer or farm woman from each of the counties in the particular farming-type area. In addition, county agents, home demonstration agents, teachers of vocational agriculture and home economics, executive committeemen of the Illinois Agricultural Association, and members of the State experiment station attended the conferences. As a basis for the discussion, the committee members of the college of agriculture and the experiment station staff reviewed and summarized the available information on each of the subjects. The regional conferences were followed by local meetings in the various counties.

A series of district economic conferences was also held in seven North Dakota districts. These conferences were designed to bring together groups of leading farmers from their respective counties to

discuss subject matter and outlook material prepared by the agricultural college. From these groups were organized county extension committees to assist in disseminating the recommendations of the conference and in formulating county extension programs of work.

A decided improvement in program building was noted in the Southern States in 1928. For the most part, the county advisory boards of agriculture in each county, consisting in the main of experienced demonstrators and interested business men, worked out with the county agent the extension program for the county. The tendency was for these boards to divide up with enterprise groups, each with an active subcommittee to meet with the agent throughout the year in the effort to solve current problems relating to production or marketing phases of the enterprise. To this function was added in a number of sections that of assisting the agent in executing his plan of work. The following extract from a Georgia district agent's report is typical of this development:

In the development of an enterprise the plan of work provides for from three to five outstanding result demonstrations to be conducted in the county throughout the season. Around each of these demonstrations efforts are made to center the attention of others interested in the same enterprise. Such means as items in newspapers, result demonstration meetings, method demonstration meetings, county tours, and personal visits are employed to focus the interest of a large number of people upon the demonstration in order to bring about adoption of the improved practices which are being followed. Then in order to know the individual interested in the enterprise an enrollment is made up for the county as a whole so that circular letters may be sent out giving timely advice on the handling of the enterprise.

In the Western States, where the holding of county economic conferences as a basis for organizing an extension program along enterprise lines had been emphasized for some years, a new line of thought was introduced in 1928. This new idea was an outgrowth of country-wide economic conferences held for farm women in order to set up standards regarded as essential to a satisfactory farm home. The conclusion was reached that a certain sum of money was essential to maintain the minimum standard. This conclusion presented the problem to the agricultural workers of the reorganization of farming in order to provide the required income to maintain a satisfactory home. As a result, in program building, equal consideration was given to good production practices, proper trend of the different enterprises, and the volume of business necessary in order to pay all the farm expenses and provide the required income for the farm family. This method placed on farm-management demonstration and agricultural economics departments at the State agricultural college a much heavier responsibility for leadership and tended to make them increasingly important as sources of information in fact-organization and program-building activities.

TRENDS AND RESULTS

The devotion of more time by county agricultural agents to definitely organized projects and less to miscellaneous activities, with a larger measure of substantial accomplishment resulting, is indicated in the reports for 1928.

A number of States began to classify the projects carried on in the counties into what they called major and minor projects. By major project the extension worker meant a phase of his work to which he

was going to give considerable attention and which had been tested out sufficiently in his county so that he knew it would lead to success. The agents attempted to have only four or five projects in the major group. Minor projects were those in which the agents gave a limited amount of time, and which in many counties, still were being tested as to their application to local conditions. This method of procedure eliminated from many county agents' work a number of miscellaneous activities that were not getting positive results and required them to work out more detailed and permanent plans for those projects to which they were giving emphasis. In most counties this plan required that if the practice had been tested and demonstrated in the county, the agent should formulate a definite plan for making the better practice common among the farmers.

An analysis of what the farmer accepted throws a new light on the problems of how extension work should be organized. Apparently one of the most effective means in promoting extension work was providing service and materials with which the farmer might improve his system of farming. In the grain areas the elevators were an important factor in the improvement of seed stock. Many elevator operators paid a sufficient premium for certified seed to make it a profitable crop for grain farmers to produce. The operators took it into their elevators, stored, cleaned, and treated it, and sold it back to the farmers at a price that paid the elevator a profit and enabled the farmer to regain his investment through the increase in yields caused by use of high-quality seed. The extension service has to develop the seed sources as well as to convince the elevator operators of the advisability of installing cleaning and treating machines.

In connection with the poultry work, in the providing of model plans for poultry houses, specialists gave the idea not only to the poultry producers but to the lumber dealers, and thus did much to improve the housing situation for poultry. The influencing of dealers in feeds, fertilizers, and spraying material to accept extension suggestions made available to farmers the formulas and increased the farmers' profits by increasing his yields. This procedure was good business from the point of view of the county agent, the business man, and the farmer. In a similar way dealers were influenced to mix rations for poultry and dairy cattle which conformed to the formulas advocated by the agricultural colleges. In another instance the agents were active in the introduction of new agricultural implements such as the combine, which increased the efficiency of the farmer and increased his profits.

Another factor in improving the quality of agricultural products was the aid given in organizing the trade channels so that the farmer would be paid on a quality basis. In some sections where a high-protein wheat was produced, the extension service cooperated with the farmer to see that he set up an organization to sell this wheat on a profitable basis.

Another characteristic of the spread of extension results apparently was due to the desire on the part of the farmer to increase his economic gain. A larger number were ready to plant improved seed if it was available in order to increase their yields. The large-team hitch proved more and more profitable where it was not being replaced by the tractor. Different kinds of labor-saving equipment used on

dairy farms in connection with their large-scale production have behind them the idea of decreasing the labor requirement and increasing the gain of the farmer. Farmers accepted the idea of increasing the size of their business by putting in a poultry unit or increasing the number of their cows to a size of herd that was considered a good economic unit.

The progress made in the concentration of effort by agents on projects of first importance in 1928 is shown in the following examples of the results obtained along various lines during the year.

Soil building with vetch and alfalfa had been a major project in Calhoun County, Ala., for four years. (Fig. 5.) At the beginning it was a rare thing for a farmer to plant as much as 5 acres. The county agent made no special effort to induce him to plant an acreage



FIGURE 5.—County agricultural agent inspecting demonstration in alfalfa

larger than he had decided upon. As a result the farmer usually planted only 1 or 2 acres, even though he had received excellent results from turning under an acre of vetch the preceding year, followed by corn or cotton.

In 1926, the county agent had 66 farmers planting vetch as demonstrations. This represented only 325 acres. This vetch was turned under and followed with corn and cotton. Eleven field meetings were held with a total attendance of 164 farmers to study the production of corn and cotton after vetch.

Careful comparisons were made of the corn and cotton after vetch with that on the same soil where no vetch was turned under. Farmers estimated an increase of 20 to 25 bushels of corn and 300 to 350 pounds of seed cotton per acre due to the use of vetch.

In the summer of 1927 the county agent decided to launch this project on a basis of 5 acres or more per farm. Arrangements were made for the Calhoun County Farm Bureau to handle the seed. In the fall of 1927, 121 farmers planted 1,175 acres of vetch.

So successful was the vetch program in 1927, that the county agent, backed by actual demonstrations and experiences of leading farmers who had succeeded with vetch, tackled this project with renewed vigor. A vetch campaign was planned carefully and was executed in a thorough manner. The results from the vetch project may best be shown by Table 4:

TABLE 4.—*Four-year increase in acreage planted to vetch as the result of extension campaign in Calhoun County, Ala.*

Year	Area plant- ed to vetch and Aus- trian win- ter peas	Phosphate used
	<i>Acres</i>	<i>Tons</i>
1925.....	450	20
1926.....	775	45
1927.....	1, 175	69
1928.....	2, 210	298

In Rutland and Addison Counties, Vt., where most of the soil is deficient in lime, demonstrations showed that the application of lime brought results, and the agents tried to stimulate farmers to use more lime. There was a cheap source of lime in each county, yet the farmers were using little lime. The county agents arranged to have lime trucked directly to the farms at reasonable cost, with the result that the lime commenced to move in 20, 40, and 60 ton lots.

Anderson County, S. C., reported that during recent years there had been much complaint from the cotton mills that the district was not producing cotton of uniform staple of suitable length for their requirements. They were being forced to buy what they needed from the West. To overcome this difficulty a 5-acre cotton contest and other means were employed to get the farmers to grow the kind of cotton the mills used. At that time the growers were assured of the recognized premium of 2 cents per pound on staple over seven-eighths inch in length for the better grades of cotton. As a result of the agitation by cotton mills, newspapers, agricultural journals, extension workers, and others, new varieties were sought and better agricultural and fertilizing practices adopted, with the result that in 1928 over 60 per cent of the cotton produced in the county was of a staple of 1 inch or better.

Five thousand five hundred pounds of copper carbonate were sold by the druggists of Pennington County, S. Dak., for use in treating more than 22,000 bushels of seed wheat for smut. An interview with elevator men in the county brought out the fact that the percentage of smutty wheat in the fall of 1928 was reduced to 20 per cent, whereas in previous years it had run as high as 70 per cent. After stimulating an interest among the people in treating wheat for smut, the county agent visited the druggists in the county and urged that a supply of copper carbonate be placed in stock. Visits were also made to the various districts in the county to assist in the construction of treating machines. One machine left by the agent at a local elevator resulted in 25 farmers copying the plan and going home to make a similar machine according to the report of the local elevator man. Seventy per cent of all seed wheat used in the county was treated.

One of the best examples of concerted effort was that shown by the six New England States where extension agents sought to get farmers and fruit growers to produce only a few of the best varieties of apples. These States have joined in selecting seven varieties of apples as standard for New England, and extension agents urged fruit growers and farmers to plant only these varieties and to top-work trees of other varieties to them.

The better-sires work grew faster in Louisiana than in any previous year. The bulk of the farmers began to realize that this was the cheapest means of overcoming low production in dairy herds. The 50 bull associations had 208 purebred bulls, and 175 others were owned by individuals. Campaigns for eradication of scrub bulls were put on by county agents. In two parishes alone 697 scrub bulls were killed and 68 purebreds were introduced.

The standard Corn Belt ration was demonstrated in three counties in northeastern Kansas with 5,100 steers in the 21 demonstrations. This ration consists of corn, cottonseed, meal silage, and alfalfa, and the results showed that the steers in the demonstration were produced at \$1 per hundredweight less than from rations formerly used by the cooperators.

Eight demonstrations on hog feeding and eight on hog-lot sanitation in Howard County, Mo., proved that thrifty pigs would put on 100 pounds of gain from an average of 6.3 bushels of corn and 21 pounds of tankage. A survey of the county showed that the average farmers in the county could save approximately \$150 per year on hog feed for the pigs and \$30 by keeping one less sow and still raise the same number of pigs. As a result of the "Grow-thrifty-pigs" campaign in the county, 190 farmers followed the hog-lot sanitation plan. Relatively complete reports were received from 88. Of these, 45 reported that they raised their pigs away from the old hog lots until they were 3 months old; 40 used portable houses; 87 indicated that they intended to follow the "Grow-thrifty-pigs" plan. The men reported saving an average of 7 pigs per sow and raised 6.59 pigs per sow.

Two lumber dealers in one town in Sully County, S. Dak., reported that more than 50 farmers purchased material for the construction of individual hog houses in connection with the hog-lot sanitation project during the year. One of these dealers took first place in the sale of lumber for individual hog houses in a contest conducted by a lumber company which operates in North Dakota, South Dakota, Minnesota, and Iowa.

The North Dakota county agricultural agents cooperated in placing 60,579 sheep on 1,168 farms during 1928. An agricultural credit corporation financed the buying of most of these sheep, lending to the farmers a total of \$573,558 on a 3-year contract at an interest rate of 6 per cent. The agents also cooperated with the Greater North Dakota Association in placing more than 80,000 pounds of alfalfa seed and more than 218,000 pounds of sweetclover seed.

The "Grow-healthy-chicks" project emphasized the production of healthy pullets by following a policy of disease prevention and wise management, involving in the main, procuring chicks from stock known to be free from disease, and rearing these chicks in cleaned houses on wire-meshed platforms and on ground on which chicks have not been reared for some time.

The size and importance of this piece of work may be seen from the following report furnished by the county agents and poultry specialist in Connecticut.

Especial note should be made of the decrease in mortality of chicks from year to year, and particularly where all the eight recommended practices were followed. The increase in egg production per bird is also noteworthy. The number of chicks grown in accordance with these recommendations is about one-fourth of the total number of chicks purchased or hatched in Connecticut each year, as shown by Table 5.

TABLE 5.—*Report on "Grow-healthy-chicks" project*

Item	1926	1927	1928
Chicks signed up to be grown according to 8-point program ¹			
.....number.....	1, 038, 637	1, 073, 751	1, 226, 608
Chicks reported with summary.....do.....	502, 938	552, 882	701, 202
Chicks where all eight points were followed.....do.....	219, 314	257, 279	304, 401
Total disease mortality.....per cent.....	7. 9	6. 9	6. 3
Chicks where all points were followed except getting chicks free of bacillary white diarrhea.....number.....	115, 036	103, 750	144, 800
Total disease mortality.....per cent.....	15. 3	14. 4	13. 3
Chicks where all points except clean land were followed.....number.....		73, 028	137, 217
Total disease mortality.....per cent.....		13. 9	12. 5
Chicks where all points except clean chicks and clean land were followed.....number.....	101, 013	118, 825	114, 784
Total disease mortality.....per cent.....	22	17. 9	14. 6
Average egg production (6-year average prior to 1926, 142.07).....number.....	147. 93	153. 88	161. 45

¹ The eight points in the grow-healthy-chicks program are clean chicks, clean incubators and eggs, clean brooder houses, clean ground, clean litter, clean feed in hoppers, clean management, and clean laying houses.

Economic swine production and timely marketing were emphasized in North Carolina. According to the records obtained by the office of swine extension, 404 cars of hogs were shipped from 29 counties during the year. These cars contained 28,665 animals weighing 5,369,833 pounds. The average price received was \$9.86 per 100 pounds, the hogs returning an income of \$529,760.45. Freight, commission, and grade deductions brought down this total to the actual figure of \$487,683.97, which is the amount the farmer received. The hogs made an average weight of 187 pounds.

The office of swine extension continued to encourage hog growers so to breed and feed the animals as to sell on the market in March and April in the spring and on the August and September market in autumn. For an average of eight years, a 200-pound lard hog sold during September for \$22.68. An oily hog of 300 pounds was sold during December for \$20.95. The swine extension specialist made an effort during 1928 to reduce the production of the extra 100 pounds of oily pork.

During the year 11 county agents kept accurate records that aided the swine extension office in reporting its demonstrations. The two specialists made 14 visits to county agents, 155 visits to various demonstrations, and 509 to hog growers in general. The specialists also attended 78 meetings at which 2,316 persons were present.

In Pender County, N. C., the agent succeeded in organizing the farmers into a swine association for controlling the quality of hogs shipped from that county. As a result, all hogs shipped by this association usually topped the market. The main point in this industry seemed to lie in the fact that it has become more or less

stabilized to the extent that there is very little surplus corn being sold at market price. This surplus finds its way to the market at a much better price through hogs.

NEW OR UNUSUALLY SUCCESSFUL METHODS

In a number of counties new and successful methods of extension education were reported by agricultural agents. This improvement in methods was featured by several important developments. The first of these was the tendency to use a greater variety of devices, means, and agencies to make the teaching effort more continuous. Where a few meetings and a few news accounts of demonstrations had characterized the teaching effort in previous years, agents and specialists in 1928 joined in the important projects in preparing and using more circulars, envelope inclosures, circular letters, stickers, news notes, contests of various kinds, and much direct mail matter in a systematized effort to acquaint a larger circle of farmers with some special problem common to them, and to influence them to see the value of and to adopt the practices recommended as a solution. Particularly significant was the improvement noted in circular letters and their increasing use. Where formerly these were too often mere mimeographed announcements, to-day they serve as decided stimulants to the farmer to learn and to adopt certain better practices.

It was also significant that many States adopted the campaign method of teaching for some of the most important projects. They have come to understand the campaign as a well-organized plan for teaching large numbers of people, and not as a short-time whirlwind affair. The well-planned campaigns were marked by the determination on a few simple practices as a practical solution for a problem common to many farmers; by the use of a variety of aids and devices over a period of several months to win attention to the central needs and to the practices offered as a solution; to obtaining action from farmers known to have the problem and for whom the recommendations were appropriate; by careful sustained instruction of these farmers so that they would be successful with the new practices; by a system of report survey which obtained from 60 to 90 per cent of the farmers a record of just what they did with the practices; how successful they were, and how satisfied they are. Typical examples of the employment of improved teaching methods and of the results obtained are given.

Eighty-two school district delegates attended the fourth Cass County, Mo., clover and prosperity conference. These delegates accepted 178 specific commissions or assignments for advancing the lime and legume project in their communities. Approximately 1,300 acres of alfalfa and 1,000 acres of sweetclover were sown in the county during the year. A lime train of 27 cars carrying 1,485 tons, was run into the county and a lime-day program was attended by nearly 2,000 people. Two limestone bins were established during the year, making a total of 13 in the county. One or more cars of lime were unloaded at each station.

One Kiwanis club in the county accompanied the train and wore suits made especially for the occasion. They also furnished transportation for a band, while a chamber of commerce paid the cost of obtaining the band. Another chamber of commerce furnished meals for the band and speakers and took all the advertising space in the

special limestone edition. A limestone contest was conducted in the county open to clover-and-prosperity delegates. The prizes were a 50-ton car of lime, 1 bushel of alfalfa seed, and 100 pounds of sweet-clover seed. The first prize was awarded to one delegate for having taken orders for 11 carloads of lime. The nine men who competed in the contest took orders for 2,500 tons of lime, a part of which was delivered by the lime train. Circular letters were sent during the year to seed dealers in the county who cooperated by placing the recommended alfalfa seed in stock. These dealers reported at the end of the year the sale of 16,682 pounds of the recommended alfalfa



FIGURE 6.—County agricultural agent inspecting a demonstration field of corn used in a well-planned local campaign

seed. Newspapers in the county issued three special editions relating to legumes, soil improvement, and the limestone train. Two circular letters were sent to all business men in the county, one inclosing soybean handbills and another alfalfa posters which the business men were asked to display. Five hundred soybean stickers and 2,000 lime stickers were distributed through the delegates. Three thousand soybean handbills were distributed by two men in each of 20 different towns. They were placed in automobiles.

A fine record of accomplishment and the outline of a well-planned campaign are provided in the annual report of the county agent leader in Maine. The crops specialist planned the campaign and helped county agents in 11 counties to organize to carry on the work.

The record for the 1928 apple-tree campaign in Maine is:

Enrollment:	
Tree goals.....	17, 229
Cooperators.....	596
Apple trees.....	17, 234
Reports obtained:	
Cooperators.....	500
Apple trees.....	19, 026

The outstanding phases of the campaign plans are:

- (1) Specialist and extension editor cooperated in publishing 94 different news articles on top-working campaign prior to time grafting should be done.
- (2) The need and plan of work presented to leading rural organizations, societies, State departments, and outstanding fruit growers.
- (3) Community committees functioned as follows:
 - (a) Made house-to-house survey to determine number of New England seven varieties grown; number of trees suitable for top-working; number of trees top-worked since 1922.
 - (b) Indorsed the campaign.
 - (c) Set goals in terms of prospects and trees.
 - (d) Arranged for a prospects' meeting.
 - (e) Prepared a letter to prospects.
 - (f) Arranged for a top-working demonstration.
 - (g) Assumed responsibility for local sources of scions, wax, etc.
- (4) A prospect list of 635 growers as a result of survey.
- (5) Three circular letters to prospects.
- (6) Twenty-five meetings; 100 top-working demonstrations.
- (7) Bulletin on top-working distributed to prospects.

The record shows that 28,705 trees were top-worked in the period from 1922 to 1927 without a campaign.

Louisiana found that its state-wide 5-acre cotton-growing contest, with 15 premiums ranging from \$100 down to \$5, was a great stimulus to cotton production. It is generally believed by extension workers that this contest did more than any other one thing to make cotton production profitable. This contest was arranged by the State extension service with the manager of the State fair. Each contestant was required to enroll with the extension organization by June 1 and to produce 500 pounds of lint per acre in order to compete for prizes offered. Approximately 300 entered in the spring, and 50 made exhibits at the State fair, supplying records and affidavits on the contest plots. The winning contestant produced 12 bales of lint cotton on 5 acres. Three others produced 10 bales each on their 5 acres.

The Illinois Extension Service developed a plan to teach farmers to test their own soils. Thirty counties in the State carried on the soil-testing and mapping project during the year. In several of these counties soil-testing meetings were held in every community. That one or two samples from a field may be misleading is shown by the case reported of one farmer who did not believe it was necessary to go to the trouble of making a systematic test in different parts of the field. The test of one sample from one corner of the field indicated that 3 tons of limestone were needed per acre. He ordered 120 tons of limestone. While the limestone was on the road he was induced to test the field according to the plan of the soil-testing project. After he had tested the field and drawn the map he found that the lime requirement of the field was only 60 tons instead of 120. This represented a saving to him of \$90.

In 1928 the agent for Bradley County, Ark., obtained 11 demonstrations with hairy vetch in different parts of the county. During

the spring just before the vetch was ready to be turned under, he held a farm tour, inviting farmers and business men to inspect the vetch demonstrations. Thirty-four farmers and business men made the tour and studied the demonstrations. The vetch was then turned under, and the crops of corn and cotton planted on the plots of land. In August, the agent inaugurated another farm tour, attended by more than 60 farmers and business men, to study the growing crops of corn and cotton following vetch. As a result of these 11 demonstrations, together with the 2 farm tours, farmers in Bradley County last fall purchased 4,200 pounds of vetch seed to be planted for soil building.

Kansas prepared and installed exhibits in six cars used in a soil-improvement special train. One car contained lime-spreading machinery, two cars contained exhibits portraying the need and use of lime, and one car devoted to home economics portrayed the need of provisions for an annual supply of fresh fruits and vegetables. One feature of this exhibit was a vegetable cave, for storing vegetables, built within a passenger coach. The cave was provided with fruits and vegetables needed for a family of five. Since the month was July the train was cooled with ice stored in the space on the sides of the entryway, giving the visitor the impression of going down a cool cellar. Two additional cars were devoted to 4-H club work. Between 350,000 and 400,000 people saw these exhibits during the year.

The value of county project exhibits in placing before the public the desirability of adopting the practices suggested in the best extension exhibits is indicated by the fact that people from 64 Minnesota counties and 14 other States registered for further information at the turkey-project exhibit booth at the Minnesota State Fair in 1928.

The turkey exhibit reported results on 50 turkey-raising demonstrations on clean ground. The average weight at Thanksgiving time of turkeys produced under the sanitation system was 17 pounds, and of those produced under the common method, 12 pounds. The average cost per pound was 7 cents for producers following the sanitation plan, as compared with 14 cents for those not following it. The average mortality among turkeys raised under the sanitation system was only 8 per cent as compared with 42 per cent among those raised with ordinary methods.

SUMMARY

County agricultural agent work in 1928 found for itself a more established place in agricultural development and gained strength both in the number of agents employed and the effectiveness with which they conducted their work. Program building likewise took on a more permanent character, and the long-time development of agriculture on the basis of a fuller knowledge of economic situations and trends was outlined. Efforts of agricultural agents were more largely concentrated on farm problems of major importance in their communities and counties with a definite increase in tangible and practical results reported. Numerous teaching devices and agencies for commanding attention and stimulating action on the part of producers were widely and effectively used. On the whole, 1928 was signalized by marked progress in giving county agricultural agent work more permanent standing in the farming community and more definiteness as a system of practical adult instruction.

HOME DEMONSTRATION WORK

PROGRESS

Home demonstration agents reported that over 1,500,000 improved practices in the activities of the home were adopted by farm women and girls in 1928. The adoption of these practices was brought about through a wide variety of contacts between the agents and the women and girls of their counties. Through 18,596 local home demonstration groups the agents assisted the 388,197 women who were members of these clubs. In a like manner they worked with 213,573 girls enrolled in 14,168 4-H clubs. The agents personally visited more than 165,000 farm homes giving suggestions and instruction and obtaining aid in carrying out the local extension program for each community.

The home demonstration agents induced the women and girls of their counties to carry to completion over 1,000,000 demonstrations

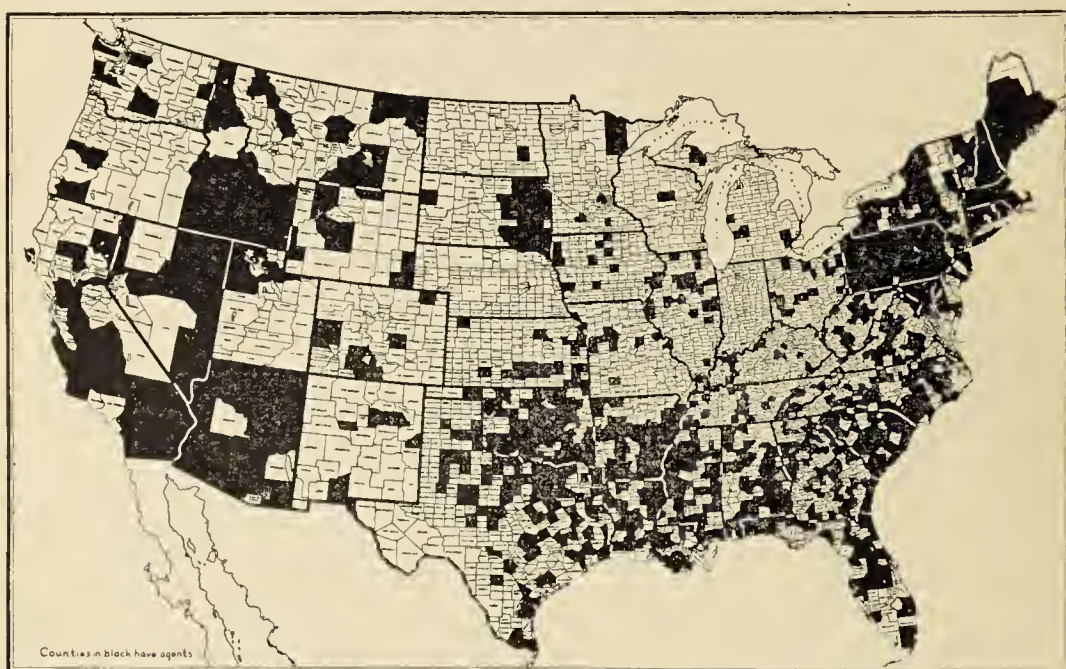


FIGURE 7.—Counties having county home demonstration agents on June 30, 1928, are indicated in black

in improved practices relating to foods, nutrition, clothing, home management, house furnishing, beautification of home grounds, health and sanitation, and child care and training. Of these demonstrations, 472,009 were conducted by women and 532,827 by girls. More than 700,000 of the demonstrations had to do with food preparation, production, and preservation and with nutrition. The main distribution of the other demonstrations conducted was as follows:

Clothing.....	163, 641
Home management.....	46, 865
House furnishing.....	64, 494
Beautification of home grounds.....	64, 268
Health and sanitation.....	78, 129

Demonstrations in food production and preservation, clothing, house furnishing, and beautification of home grounds not only encouraged farm women and girls to provide for the needs of their own families but to have surplus products for sale. These included garden, orchard, poultry, and dairy products, both fresh and preserved;

flowers, articles of dress, and house furnishings such as rugs. The need for the organized marketing of these products caused home demonstration agents to assist in the formation of cooperative associations or groups. Agents reported the organization of 138 of these associations in 1928. These associations had 15,371 members, and their sales amounted to \$554,101. The agents worked also with 130 associations that had been previously organized. These associations had 28,994 members, and their sales amounted to \$1,376,652. Home demonstration agents aided farm women and girls to add nearly \$2,000,000 to the family income in 1928. This increase in income was spent largely for needed clothing, equipment for the improvement and sanitation of the home, and for the education of the children of the family. This extra income contributed materially to the satisfaction with rural life and to the comfort of many farm families.

That home demonstration agents have won the loyal support of the women and girls in their counties was evidenced by the large numbers who voluntarily served as local leaders in extension activities. In 1928 agents reported 49,624 leaders enrolled in adult work and 17,437 leaders enrolled in 4-H club work. This army of local leaders contributed in no small way to the success of the home demonstration program throughout the country, and enabled agents to reach and serve a far larger number of women and girls than would have been possible without such assistance. These local leaders not only carried home-economics instruction to the women and girls of their community but through attendance at district and county extension schools and camps and at State short courses, they became the representatives of the cooperative extension service in every effort for community improvement and progress. These leaders came in touch with influences which broadened their experience, both in the business of home making and in the art of living. They caught the vision of the economic and social possibilities of rural life and returned to their community determined to bring about a higher standard of living on the farm and a richer social life in their community.

In their teaching efforts in 1928 home demonstration agents made use of a wide variety of modern agencies for extending information to the public. Meetings and tours were conducted, camps and short courses held, news items for local newspapers written, attractive circular letters sent out, publications distributed, exhibits displayed, and the radio utilized. The extent to which these agencies were used is indicated by the fact that the agents reported holding 283,382 meetings, conducting 375 camps for women, and 632 camps for girls, preparing 84,814 news items, writing 1,054,374 letters, and distributing 1,662,987 bulletins. (Fig. 8.)

PERSONNEL

Over one-third of the rural counties in the United States were employing resident home demonstration agents in 1928, the total number of agents employed on June 30, being 1,049. Of these agents there were 177 in the 12 Eastern States, 134 in the 13 Central States, and 74 in the 11 Western States, while in the 12 Southern States there were 556 white agents and 108 negro agents. There was an increase of 29 agents in the number employed in 1928 as compared with the number employed in 1927. This force of county home demonstration agents was supervised and assisted by 139 State and district supervisors of

home demonstration work and a corps of 171 economic specialists traveling out from the State agricultural colleges. County home demonstration agents were employed in all counties in New Hampshire, Connecticut, and Delaware.

Home demonstration agents in 1928 sought to bring about a wider use of better practices in the farm home, to develop among the women of their counties well-defined standards of desirable home and community life, and to plan and carry into effect programs with these objectives in view. The agents tried not only to obtain the adoption of improved practices but sought to imbue farm women with a desire to acquaint their neighbors with the improved methods learned. They sought likewise to help rural women more fully to meet the opportunities and responsibilities of citizenship and to participate in con-



FIGURE 8.—Home demonstration agent training local demonstration group in making articles of furniture

structive community activities. Home demonstration agents helped to develop in the women and girls with whom they worked a keener appreciation of the fundamentals of fine standards of home and community life, of the responsibilities of parents in child development, of proper balance among work, rest, and recreation, and of what constitutes being well clothed, well fed, well housed, and maintaining a well-regulated personal, family, and civic life.

SPREAD OF INFLUENCE

Home demonstration agents during 1928 made determined efforts to give assistance to larger numbers of women and girls than in previous years. In many cases these efforts were successful, and the goals set up were accomplished. In the Eastern States, for example, New Hampshire reported the adoption of improved practices by five times as many farm women in 1928 as in 1927. In Worcester County,

Mass., three times as many young mothers were reached and assisted as in 1927. Some county executive committees offered prizes to the community unit obtaining the largest percentage of increase in membership and to the unit obtaining the largest number of members under 35 years of age.

Similar developments in the far Western States are exemplified in the reports of the State home demonstration leader for California. Six counties used the election list to locate farm homes not being reached. Interested women then agreed to call on the women living in these homes and obtain their attendance at demonstrations. As new homes were influenced they were dotted on community center and county maps. In 162 community centers in 21 counties neighborhood leader meetings were held. Home demonstration agents in these counties trained 297 project leaders, who in turn trained 826 neighbors. As a result of the activities of these leaders 3,076 farm women adopted some improved practice. Contests were conducted in a friendly way among the women of the farm home, departments of the community center, and some counties. These contests were based on attendance, practices adopted, and suggestions passed to others and adopted.

PROGRAMS

Home demonstration agents reported the organization of extension programs by 20,416 communities in 1928. Although the local women have always had a voice in determining the extension programs for their communities, special emphasis was placed in 1928 on the development of such programs with a full understanding of the economic and social conditions in the county as a whole and in the community in particular. In three of the Western States—Montana, Wyoming, and Colorado—a number of county-wide home-economics conferences were held preceding the organization of the several community programs of the county. These county conferences gave the farm women an opportunity to discuss the needs of the farm home in a businesslike way and served as a means of getting actual facts on which to base home demonstration work in the county. Oregon and Washington adopted the idea of a standard farm home as a basis for working out the community program. With the kind of home in mind that the family should have and the knowledge of what it would cost to have such a home, it was felt that the various enterprises of the farm would be adjusted and planned to meet the requirements of such a standard home.

A study of county conditions or a county survey conducted by representative women of the county frequently precedes the organization of community programs in the Southern States. Emphasis was placed in 1928 on having an adequate knowledge of economic conditions in the county as the necessary preliminary to intelligent program planning in the community.

In counties where the results of the study or survey showed too few acres of home gardens and orchards, insufficient farm poultry flocks, and a milk supply inadequate for the needs of the families living in the counties, demonstrations in each line of activity were scheduled in every section of the county and fostered by the members of the county council and their respective clubs. As a result the number of demonstrations was greatly increased, and the desirability

of developing a more adequate home-grown food supply was brought to the attention of every community.

In carrying out programs of the various communities the members of the county council and their respective clubs assisted the extension agents. During the spring months, emphasis was laid on providing enough feed for the cows and poultry and on providing food for the family's own use. In the summer the utilization and conservation of vegetables, fruits, and other products were emphasized. In the fall attention was devoted to preparing educational exhibits for county and State fairs and obtaining reports of results obtained by farm women and girls participating in the program. In the winter meat curing and canning, fireside industries, home improvement, and the perfection of club and county organizations were encouraged.

Likewise, in the Eastern States emphasis was placed on a more thorough study of local conditions in order to know the problems of the majority of home makers in the county before attempting to outline the extension programs of the various communities and of the county as a whole. New Jersey, for instance, made a local leaders' survey in each of its 14 counties. A questionnaire with the caption "Essentials and Costs of a Good Standard of Home Life" was adapted to the county by the home demonstration agent and her advisory committee. The questionnaire was organized with five main divisions: Home equipment and furnishings, foods, clothing, educational recreation and social life, and allotment for home living. The questions were so framed that it was possible to obtain the information at group meetings rather than by a house-to-house canvass. By this method it was possible to obtain a reasonably accurate picture of the community and at the same time to stimulate the thinking of members of the group with regard to a desirable standard of living for a farm home and the methods of attaining such a standard.

The procedure followed in making this survey was for the home demonstration agent to take the matter up first with the women's advisory committee in each county. The members of these committees gave full cooperation and conducted the study successfully in their own communities. The information obtained outlined specific problems to be met and is being used as a basis for the organization of long-time extension programs in these counties and communities.

The organization of programs in the Central States was influenced to a considerable degree by agricultural adjustment conferences, State or county-wide in scope, which were held in this territory, and by certain studies which were made of basic home and community conditions. Special attention was given to the thorough and systematic follow-up in various phases of the programs adopted. As the result, in many counties the tentative project instruction of the first year was supplemented and reinforced through check-up meetings, window displays, playlets, circular letters, news items, and tours with a view to keeping alive the initial interest aroused and making permanent the adoption of the recommended practices. The following excerpt from the report of the Kentucky State home demonstration leader indicates how the various local home demonstration clubs function in carrying out the community and county extension programs.

At the program-planning meeting each club has an open discussion of the various interests of the club for the year. This discussion includes a community

improvement project, a recreational program for the whole community, some recreation and entertainment at each club meeting, and a minor home-making program of interest to the particular community and in addition to the major county project.

SUBJECT-MATTER TRENDS AND RESULTS

In all activities relating to the selection, preparation, preservation, and production of food for the consumption of the farm family keen interest continued in the farm home. This is evident by the material increase in the number of demonstrations conducted. Particularly, was there a marked increase in the number of demonstrations in food preservation conducted by girls, showing that the earliest of home demonstration activities is still gaining in popularity. The interest in the selection, preparation, and preservation of food was common to all sections of the country. The production of home-grown foods, although showing a marked increase, was largely confined as heretofore to the Southern States. The increase in the number of adult demonstrations conducted in 1928 over the previous year reported by county home demonstration agents was approximately, in food preparation, 11,000; in food preservation, 20,000; in home gardening, 4,000; in home poultry work, 3,900; and in home dairying, 2,000. The increase in junior demonstrations was approximately in food preparation, 7,100; food preservation, 10,400; in home gardening, 8,400; in home poultry work, 2,300; and in home dairying, 600.

The selection of foods for the proper nutrition of the farm family also gained in popularity. The increase in the number of demonstrations conducted in 1928 over 1927 was approximately 2,000 for women and 9,200 for girls. The slogan, "Eat for health," was widely used in arousing interest in proper food selection. Stimulus was given to the movement in some States by encouraging local community groups that served meals at meetings to have these meals take the form of demonstrations in the well-balanced selection of foods.

Interest in clothing work was maintained in most States, although there was a slight decrease in the number of adult demonstrations which was offset by an increase over the previous year of about 6,500 junior demonstrations. Emphasis continued to be placed on the making and use of foundation patterns. Fashion and fabric shows were widely used to back the selection of clothing, stress being laid on the importance to the wearer of color, line, design, and stability as factors in choosing clothes.

Home-management adult demonstrations increased by 3,660 over 1927. Kitchen improvement, stimulated by State and county contests, was the leading feature. Considerable interest was aroused in efforts to determine family living costs, the relative efficiency of various kinds of household equipment, and methods of economizing time and physical effort.

Home improvement through the selection, construction, and arrangement of furnishings and the beautification of the surroundings of the home through flowers, shrubs, and lawns found a wide response among farm women and girls. In home furnishings, the increase in demonstrations over the previous year was over 3,200 for the women and more than 5,400 for the girls doing work under the instruction of

home demonstration agents. The demonstrations in the beautification of home surroundings, most of which were conducted by women and girls in the Southern States, showed an increase in number in 1928 over 1927 of about 3,500 for women and 10,000 for girls. The latter figure, in particular, indicates how strongly the home demonstration program for making the farm home a place of attraction and charm has appealed to the imagination and ambitions of the southern farm girl. (Fig. 9.)

In the South the growth of cooperative marketing by farm women and girls was more pronounced than in any other section. Home demonstration agents reported 138 new marketing groups or associations organized in 1928 and 130 previously organized with which they



FIGURE 9.—An attractive living room in a modern farm home arranged under the direction of the home demonstration agent

were working. The total sales of these two groups of associations for the year was nearly \$2,000,000.

Home health and sanitation was a subject of continued concern to home demonstration agents and the women and girls whom they assisted. The water supply, sewage disposal, screening the farmhouse against flies and mosquitoes, the sanitary care of foods, and like matters received attention.

Extension instruction in child care and training, aided by the results of recent research, took more definite form in 1928. At group meetings where the subjects were discussed, individual problems were gone into by the agent or specialist, and the interested parent or parents put into practical use the suggestions presented.

Recreation and music appreciation as part of the program for the meetings of the local demonstration group have proved to be wholesome and stimulating. Concern with the duties and opportunities of citizenship are increasingly being manifested and instruction in this

field requested. In Ohio and Illinois organized project work was conducted in the field of citizenship. In Nebraska this subject was presented at farm women's camps as a result of requests by farm women.

NEW AND SUCCESSFUL METHODS

Lectures and method demonstrations before local groups continued to be the chief means of extension teaching by home demonstration agents in 1928. These standard methods, however, were largely supplemented by various other methods of presenting subject matter. (Fig. 10.)

Teams of women and girls, trained by the home demonstration agents and by skilled volunteer workers among the women, aided greatly in extending the influence of the home demonstration meeting. These teams gave demonstrations at public meetings and on rally-

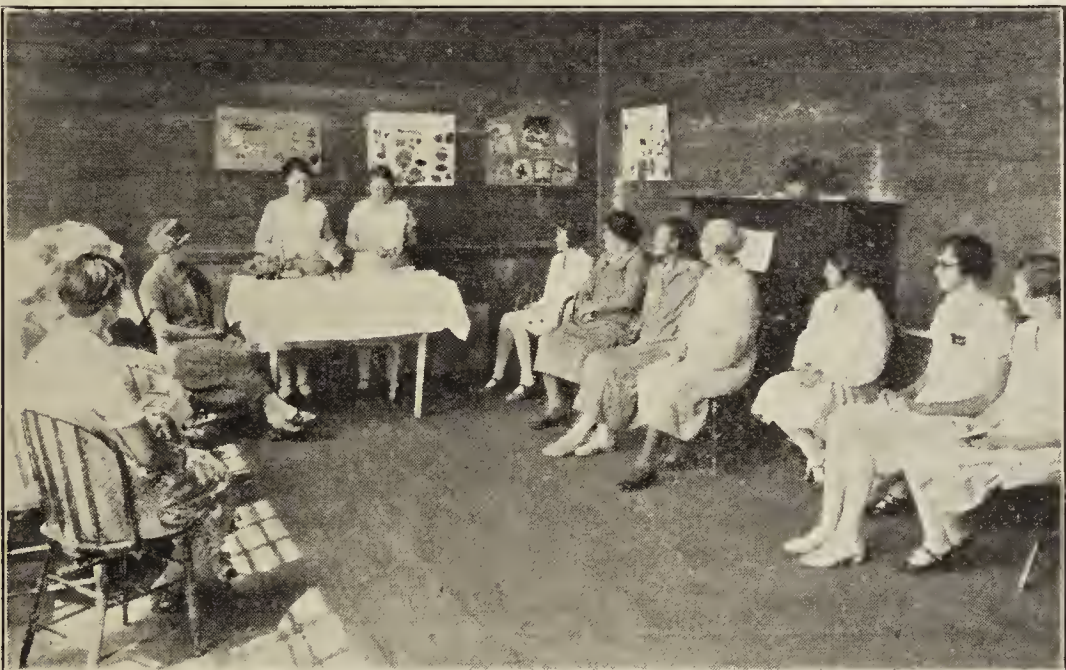


FIGURE 10.—County home demonstration agent giving method demonstration in the preparation of food to a local group of farm women

day and achievement-day programs. They were also a feature of camps and short courses, county tours, and exhibits for county and State fairs.

Home-improvement tours, consisting of a cavalcade of automobiles carrying groups of interested business men and club women from both town and country, were conducted. The itinerary included stops at the farm homes where the most successful results had been obtained in different lines of the work, among which were demonstrations showing improvements made with farm poultry, home gardens and orchards, beautification of home grounds, better farm-home kitchens, and other outstanding results, which were discussed and explained to the visitors by the demonstrators in their homes.

Such educational tours had a wholesome effect. They stimulated greater interest in the work through obtaining fuller and better publicity about the most outstanding results, and encouraged many of those who observed these results to undertake similar improvements in their own homes. These tours were described in local newspapers,

and their influence was thereby spread over large areas to many hundreds of persons who were not near enough to observe the demonstrations visited during the tour.

The kitchen-improvement work lent itself admirably to the use of the contest plan. Prizes were given in some States for the kitchens winning first place, although it does not always appear necessary to offer prizes in order to obtain entrants in these contests. In New Jersey, for instance, where no prizes are offered, the kitchen contests have grown in popularity each year.

Contests were used with success, also, in clothing work. As a climax to nine years' clothing work in New Hampshire, a State clothing contest was staged. House dresses or simple afternoon dresses were entered in the contest. Only women who had taken extension work in clothing could compete, and each dress submitted was made by the use of a permanent pattern. These dresses were first submitted in 10 county contests, judged at county field days, and the 30 winning dresses were displayed and judged during the State farmers' and home makers' week. The prizes for this state-wide contest were: First, an electric sewing machine; second, a motor to run an ordinary sewing machine; and third, an electric iron.

Many States had achievement-day programs or summary meetings where the work accomplished on projects was reported. Maryland reported 39 achievement days held in 17 counties the past year. The State home demonstration agent says:

No other one measure in checking results of progress has been so effective as the achievement program. At this time the county project chairmen make reports of progress and accomplishments of projects carried on in the county. Exhibits are put up by individual clubs. Stunts, playlets, and songs by the women all have a part in making up the program.

During 1928 more attention was given in most States to informing the public as to the aims and results of home demonstration work through stories and items in the local press. In doing this, two objectives were kept in mind: (1) To inform farm women of the content and values of home demonstration work in such a way that more of them would become active participants in the home demonstration program, and (2) to present so effectively and attractively the accomplishments of farm women already participating in the home demonstration program that public opinion throughout the country would be won to the support of home demonstration work.

In a number of States, in addition to the general officers for each local home demonstration group, a reporter was elected, the reporters receiving definite training from the extension staff in matters of news writing. In Iowa, where this procedure has been continued for some years, farm women in several counties assumed responsibility for editing a full page of a county-seat newspaper once during the year. These reporters were given training in news writing by the extension editor and were then responsible for reporting accurately and effectively to local papers the news of local groups. During 1928 similar training was given in a number of States to the persons in the local groups responsible for publicity, and improvement in the quality of news was marked.

New Jersey reported the following:

The members of the State staff prepare articles for the monthly publication called "New Jersey Agriculture," and prepare also a weekly news service sent out to the papers of the State. In addition to this regular service each subject-

matter specialist has prepared a monthly news-letter to home demonstration agents. The agents use this material for regular weekly news columns in county papers to supplement their local news. The majority of the agents have a regular column with a regular heading, but in two cases the agents have been able to get more front-page space by making special feature articles of their publicity.

The State leader of New Hampshire said in her report:

The agents, as a general rule, think they do more publicity work than they really do. In order to make them realize just how much or how little had been done, the plan of keeping a publicity scrapbook was suggested. News stories, circular letters, photographs, and clippings, all had their places in these books.

A publicity contest was carried on at the annual conference using the above-mentioned material. County agents and home demonstration agents in all 10 counties took part in the contest. A film-strip stereopticon was given to Rockingham County for first place in the news-writing class, and another went to Belknap County for the best set of circular letters for the year. The home demonstration agent in Cheshire County was awarded first place for writing the best individual news story of the year.

Agents in other States in this section are also appreciating the need for a thorough knowledge of their local situations and are spending considerably more time than heretofore in getting ready before launching a program. This preliminary procedure consists of making surveys, making home visits, assembling facts available from other sources, such as health departments and research divisions, and sending out advance publicity to the newspapers and through the mail.

In Carroll County, Md., in a project called "Make your kitchen work easier," a series of four circular letters was sent to 300 women not being reached in groups. The purpose of these letters was to stimulate a desire for more convenient kitchens.

New Jersey continued its use of monthly news-letters for young mothers. These were prepared by the foods specialist, printed in English and Italian, and sent to the counties. The home demonstration agent signed the letters and sent them to her mailing list of young mothers.

Camps and short courses were held in a majority of the States in all sections of the country. The camps not only afforded rest, recreation, and instruction to the farm women but proved to be a popular means of bringing home demonstration work before the general public. In all States wide publicity was given to these camps. Several States reported that the camps were an influencing factor in establishing home demonstration work in some new counties.

Vacation camps in Idaho were developed as a part of the regular home demonstration program. Six camps were held at different points in the State in 1928 to enable as many women as possible to attend. In order to keep the camp within the reach of all women there was no registration fee, and the total expense was minimized in every way possible. The women brought their own food, planned their meals, and ate together. Preceding all camps, suggestive menus were sent out by the nutrition specialist and State home demonstration leader. Fifteen hundred women registered for the three days, and 5,000 additional women who could not attend the full time came for two days.

The program had three phases—educational, recreational, and inspirational. (Fig. 11.) The educational program given each forenoon had a definite connection with all home demonstration projects. Some of the following subjects were given at each camp: New developments in nutrition, habit formation in childhood, fashion and fabric,

the business of housekeeping, individuality in the home, refinishing and decorating furniture, landscape art in the home, developing an appreciation for music in the home, and books that pay interest. The afternoons were devoted to a period of complete rest, followed by community games, swimming, boating, and directed recreation. The evening program consisted of vesper services and an inspirational talk by some good speaker.

Like the camps, State and district short courses were held in many States in 1928. Maryland afforded an excellent example of these short courses, its sixth being held during the year. Four hundred and seventy-six women from 21 counties registered for the course. A special program was given the last morning of the course, at which time the president of the university awarded 54 certificates to women



FIGURE 11.—Vesper services at a farm women's camp held by the Extension Service

who had attended the course for four years. The course consisted of lectures and demonstrations in clothing, foods, home furnishing, home management, poultry, home dairying, health, recreation, music appreciation, and parliamentary law.

Home demonstration exhibits at county and State fairs showed improvement in quality. Less variety was in evidence, but attractively designed exhibits with object lessons in home improvement were more frequently to be found. Farm women who testified as to the practicability of the improvements were in attendance at the exhibit booths.

LOCAL LEADERSHIP

The accomplishments in the home demonstration field would have been impossible with the limited force of home demonstration agents and specialists available if there had not been a marked increase in the use of local leaders in meeting the widespread and increasing de-

mand of farm women for subject-matter assistance and organization direction for farm-home improvement. During the year, 49,624 leaders in adult work and 17,437 leaders in junior work gave aid to the home demonstration staff in organizing and directing groups desiring the assistance of home demonstration agents in planning programs based on local needs and in carrying out such programs to successful completion.

Not all farm women are able to be members of the local home demonstration group but the influence of these local leaders extended to many women who were unable to attend extension meetings or to be a part of the local extension group. In her report the State home demonstration leader of New York says: "Interest and growth in leadership increase constantly, as community and county leaders define their problems and discover their leadership in meeting them."

SUPERVISION

Reports for 1928 showed a definite increase in the helpful supervision of county home demonstration agents by State, assistant State, and district supervisors of the work. In the field, supervisors assisted the agents in analyzing county conditions and needs for adult and junior work, in establishing desired cooperative relations, in making needed contacts, and in planning a calendar of work. They also helped in checking progress made toward predetermined objectives not only in subject-matter programs but in the whole scope of the home demonstration agents' responsibilities in conducting adult and junior home demonstration work. They aided the agent in organizing records and reports, trained county personnel in extension methods, assisted in program determination, organized a budget with local cooperating group, and assisted in obtaining county appropriations and in developing new counties for extension work. The function of the State leader or agent, in particular, as the directing influence in the organization and conduct of home demonstration work was more clearly recognized.

The work of the State leader or agent consisted mainly of (1) determining desirable basic objectives, principles, and policies to be used in the development of home demonstration work, and making recommendations to the director of extension regarding them; (2) analyzing state-wide rural needs and guiding the planning of the program of home demonstration work to meet such needs as local abilities warrant; (3) supervising specialists, in their plans of work and in the preparation of bulletins and mimeographed material for all home demonstration projects; (4) working with the State club staff in determining the conduct and program for girls' club work in counties with home demonstration agents and in the training of local leaders by home-economics specialists in counties without home demonstration agents; and (5) analyzing the activities of other state-wide organizations, and making a plan for cooperative endeavor without duplication of effort, keeping such agencies informed as to the objectives and results of home demonstration work.

The State leader or agent planned the work so that women in all counties might realize the service available to them through a home demonstration program and would be aided as efficiently as possible whether they were in counties with county home demonstration agents, in counties with an agricultural agent only, or in counties where no extension agent was employed.

SPECIALISTS' ACTIVITIES

The home-economics specialist in 1928 functioned actively along a number of lines in the development of home demonstration work. Included among these activities were: (1) Analyzing state-wide needs in her special field, (2) suggesting units of instruction and methods to be used in presenting instruction to farm women, (3) coordinating her project with that of other specialists and other agencies having common basic principles or programs, (4) assisting home demonstration agents and farm women in formulating a desirable program based on analysis of local conditions as well as on scientific facts, (5) aiding agents in planning adequate means to initiate interest and develop action in the improvement of home practices, attitudes, and judgment in the subject matter concerned, (6) suggesting and helping to make plans for adequate publicity and illustrative material, and for such special occasions as farm women's camps, State and county fairs, and junior week, and (7) summarizing and analyzing results obtained in each county and on a state-wide basis, and planning for increased efficiency in methods and in program content for the future.

In the local-leader method of doing extension work, the specialists who met with and conducted training schools played an important part. Besides teaching the local leaders, the specialists prepared mimeographed material for use at the training schools. The schools, as a rule, were of the 1-day type. This system involved considerable travel and a definite schedule. The specialist traveled from 100 to 180 days during the year. An average of at least one day each week was spent in the office analyzing the project work in counties, determining upon desired procedure in conducting the work, revising literature, preparing illustrative material, writing bulletins and circulars, and preparing publicity articles for local and State papers.

In a number of States the specialists were called upon to speak over the radio to the farm audience. They aided, likewise, in planning for exhibits at State and county fairs on subjects relating to the farm home, in preparing educational exhibits for the larger fairs, and in suggesting designs for the use of agents in organizing exhibits at local fairs.

WORK IN COUNTIES WITHOUT HOME DEMONSTRATION AGENTS

The extension work with the farm home was not limited to the counties with home demonstration agents, and programs for such work were organized in many counties without home demonstration agents. Groups of women and their local leaders in these counties were organized by the State home demonstration leader or agent or one of her assistants. In counties having county agricultural agents, helpful aid usually was given by them. Following the organization of the groups, the local leaders met and selected a single project upon which all of the clubs could concentrate during the year. Arrangements for the local leaders' training schools were made. The actual training of the local leaders was done, as a rule, by the specialist from the college who met with the leaders monthly for three to six consecutive months. Where this plan was followed, it was possible for some farm women of the county to become acquainted with the extension service in one phase of its assistance to rural women and to become the nucleus of the necessary leadership required to carry on the work creditably with the aid of a full-time home demonstration agent when such an agent was employed. (Fig. 12.)

Home demonstration work made a large contribution to the development of better rural life in 1928. Through service to adult groups and members of girls' clubs, better conditions of nutrition and health and more efficient management of the household prevailed.

Through the efforts of the home demonstration agent the outlook and objectives of farm women as to desirable family and community life were enlarged and more clearly defined, and she contributed to the health and happiness of every member of the farm family.

Funds were added to the family pocketbook through the development of productive home industries and the sale of surplus home-



FIGURE 12.—Remodeled farm kitchen. This room was originally a back porch and was remodeled by the owner with the assistance of the home demonstration agent

grown products. Contentment and satisfaction resulted from the efforts to beautify and improve the farm home.

BOYS' AND GIRLS' 4-H CLUB WORK

The year 1928 in 4-H club work was marked by the passage of the Capper-Ketcham Act which appropriated considerable funds, making possible a material expansion of 4-H club activities through the employment of additional county agricultural and home demonstration agents who devote a fair proportion of their time to 4-H club work, as well as the employment of additional county club agents who spend their entire time in work with farm boys and girls. The full benefits of the work of these agents could not be realized in 1928, yet there was a substantial increase in all phases of 4-H club work. Of the 663,940 farm boys and girls enrolled, 445,594, or 67.1 per cent, completed their work. The total number of result demonstrations conducted by those enrolled was 882,795, which constituted over 50 per cent of all demonstrations conducted in improved farm and home practices or a total exceeding by 30,000 the number conducted by their parents

and neighbors. The 4-H club program, in keeping with the objectives formulated in 1927, is being increasingly enlarged in its scope to meet the needs of a larger number of farm boys and girls. The organized club meetings, the public demonstrations, the recreational and general community activities, the trips to interesting places, the contacts with outstanding men and women, and the attainment of the club goals in farming, home-making, and general community activities established by the members themselves are all important phases of the 4-H club program for farm boys and girls. (Fig. 13.)

DEVELOPMENT OF ORGANIZED EFFORT

One of the outstanding needs of rural life is the development of greater cooperation among farming people. The club program recognizes this need and aims to provide such club activities as will

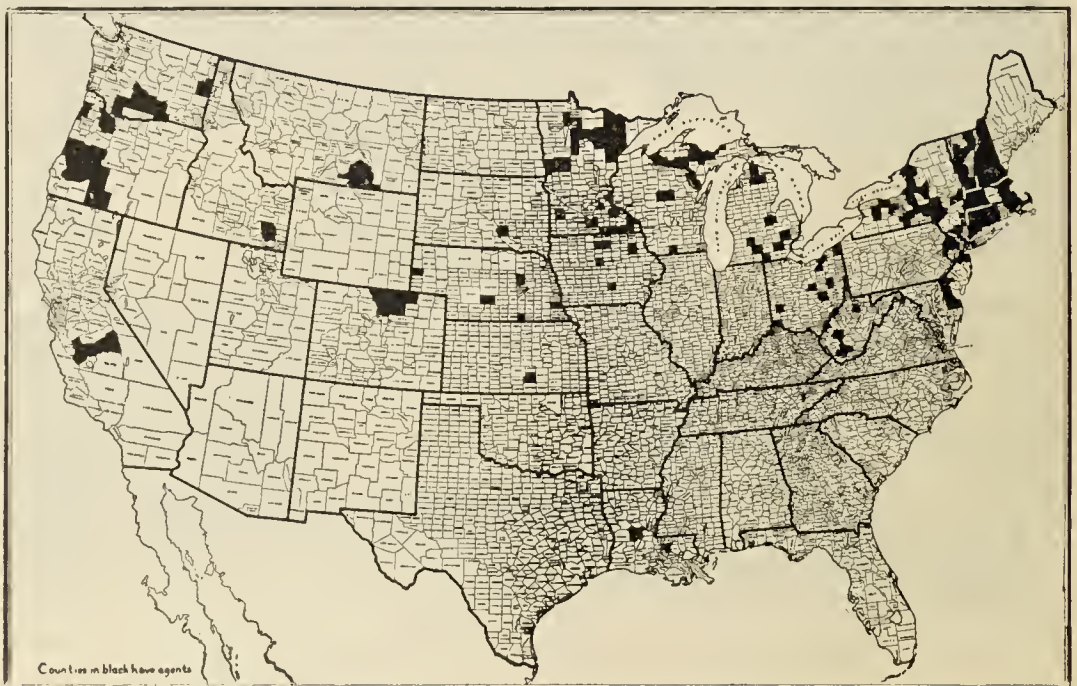


FIGURE 13.—Counties having county boys' and girls' club agents on June 30, 1928, are indicated in black

develop constructive group action and group control. Club leaders strove to focus the attention of their respective groups on the vital issues in their home-making and agricultural programs. They arranged for contacts to be made with other organized groups. They encouraged the members to respect the rules laid down by the majority. They made it possible for each member to assume his share of responsibility in the group and to conquer self-interest for the good of the group. Throughout, club leaders tried to develop constructive ideals with every attempt in organized group effort. Because good fellowship is essential to group unity, many opportunities for its development were provided in the club program.

In 1928, leaders reported a total of 46,671 organized 4-H clubs, of which the large majority met the requirement for "standard clubs." A marked increase in the number of club charters awarded was noted. Particularly in the South, a large number of the organized clubs are known as community clubs. Out of these community clubs has developed the county council or executive committee. This body is

composed of the county extension agents, the local leaders in the county, the community club officers, and in some States an additional boy and girl selected by each club to represent it. This council or committee meets several times each year. At its first meeting, a program for the county is worked out and carried back to the community clubs for ratification. In some States, the county council elects a boy and a girl to represent the county on a State executive committee which meets during the State camp at the State agricultural college. The expenses of these representatives are paid from funds raised by the community clubs. The State club program in such organizations is formulated by the State officers, local leaders, and club representatives of the counties, aided by the college extension staff. In addition, there are organizations of former 4-H club members in a large majority of colleges, who maintain a close working relationship with the clubs in their respective home communities.

DEVELOPMENT OF LEADERSHIP

It is a common practice for each 4-H club to elect one of its members as a delegate to general extension meetings and other farmers' and young people's meetings where he or she reports what his or her club has done toward carrying out the community program in such activities as the growing of crops, the raising of livestock, the preparation and conservation of food, the construction of clothing, or the general beautification of the home. It is part of the responsibility of the club representatives also to take back to their own club groups a report of these meetings and of their observations, especially those regarding farm and home life made en route.

Thus, in 4-H club work, young people have a delightful opportunity to work side by side with their parents and neighbors. They learn to recognize and to meet local needs under varying conditions, thereby gaining valuable experience as young citizens. In addition to the community activities of the extension program relating to farming and home making, the general community activities undertaken by clubs as a whole are often concerned with the beautification of unsightly places in the community, refurnishing the town hall, staging community pageants as well as arousing renewed interest in home making and agriculture through public demonstrations.

By such means as the foregoing, if enough provision is made for exercising responsibility, young people may be kept in touch with the best in rural life and may develop a true sense of civic responsibility sufficiently stimulating for them to make their own communities better places in which to live. The service rendered to farming communities by 4-H club boys and girls through their public judging and demonstration team work develops leadership qualities of a high order. In 1928 there were reported 7,948 judging teams and 18,632 demonstration teams who presented in an effective way to their neighbors and acquaintances the recommended farming and home-making practices of the research departments of their respective State agricultural colleges.

Club leaders believe that the joy and satisfaction gained by farm boys and girls in later years from watching the vigorous growth of a community which they have helped to develop more than recompenses them for the effort expended and the petty annoyances endured.

Moreover, such members of a community have been found to be its most helpful citizens in matters pertaining to its general welfare or progress. It is strong leadership of this type that is being developed through 4-H club work among the club members and the 58,258 men and women volunteering to lead 4-H clubs. These farm men and women meet regularly under the trained leadership of the extension staff for guidance and instruction. Later the guidance and instruction are transferred to the farm boys and girls under their immediate charge.

WORK OF THE OLDER BOY AND GIRL

The economic problems of farm youth received increased attention during 1928, resulting in a considerable increase in the number of



FIGURE 14.—Four-H club boys and their leader checking feed rations

older boys and girls enrolled in 4-H club work. The work of the employed personnel with this group included: (1) Emphasizing advanced club activities already listed. (2) Adding a number of advanced club activities. For example, in the livestock work, there were added the ton-litter project, the 10-ewe sheep project, the baby-beef feeding project, and others. (3) Providing club work to be done under the terms of a lease on a partnership basis with either the father or mother. (4) Expanding the junior leadership work by delegating more responsibility for the success of group activities to the older members. (5) Featuring the work which older club members are doing in livestock, farm crops, home improvement, as well as in other phases of their regular 4-H club activities. (6) Holding special short courses at the college and camps for the older club members. (Fig. 14.)

TRAINING OF PERSONNEL

In several States, during 1928, all county agents were brought to the college and given a week's intensive training by members of the college faculty and other specialists. The program of training and study given in New Hampshire included six courses, as follows: Psychology, teaching methods, recreational leadership, letter and news writing, leadership training on demonstrations, and training leaders in project judging.

COUNTY PLANS OF WORK

The one method which possibly received the greatest consideration in 4-H club work in 1928 was the planning of club work for a given county. Usually the State club leader, district agent, county agent, and local leaders constituted the committee to prepare these plans for the home-making and agricultural work to be accomplished, meetings, tours, exhibits, achievement days, and other essential features of the 4-H club program.

Throughout the country, the best results during 1928 were obtained in those counties which followed a well-planned, complete program. Apparently the county agents who are doing the best club work are the ones who are planning the work over a period of time, encouraging the leaders to have their respective clubs set aims and goals in all their club activities, and having the leaders list the aims and goals to be checked continually.

In some States such plans are known as county club calendars. According to records in the Missouri State club office, 74 per cent of the club goals which were set up in these club calendars for 1928 were achieved by the agents during the year.

In other States, a series of county planning days was arranged as a means of perfecting the county club plans of work. Members of the State club staff, together with the district agent, aided the agents in the county in planning a well-rounded 4-H club program.

EXHIBITS

The matter of public exhibits was again an important factor in 4-H club work. The large majority of States reported enlarged 4-H club departments at their State fairs. Several State legislatures appropriated funds to construct buildings on the State fairgrounds to be devoted entirely to 4-H club work. In addition, a considerable number of county fair buildings were erected for the exclusive display of 4-H club work. There was also a rather definite tendency to provide regular club departments at the county fairs where one member of the fair board of directors was in charge and assisted the superintendent. (Fig. 15).

A boys' and girls' club special train covered 14 of the 15 counties in the Upper Peninsula of Michigan in March and April, 1928. Sixty-one stops were made with a total attendance of 16,212. The plan of the train was to show by exhibits and demonstrations the work of the rural and village boys and girls in 4-H club work. Back of this plan was the desire to emphasize the known results of local leadership so as to appeal to those communities which anticipated doing club work to furnish interested local leaders in order that a well-planned club program could be undertaken.

However, doubtless the local community exhibits are the most effective in reaching and stimulating interest among those unfamiliar with the work. Reports show that the number of community exhibits as well as those held in large centers, was greater than in any preceding year.

RADIO

Parallel with the efforts being made to utilize the radio to a greater extent in the general educational field, 4-H club leaders, realizing the far-reaching advantages of the radio along this line, have been broadcasting weekly club programs. More than 20 State agricultural colleges had broadcasting stations for the broadcasting of 4-H club



FIGURE 15.—Prize-winning Chester-White sow raised by a 4-H club boy. This sow was used for exhibit purposes

programs, and nearly an equal number broadcast regularly from some large broadcasting station in their separate States. In addition, through the courtesy of the National Broadcasting Co., a 4-H club program was broadcast by the United States Department of Agriculture. For the benefit of 4-H club members, especially in thinly populated regions, the best authorities at the State agricultural colleges explained to farm boys and girls how best to conduct their 4-H club activities, whether they be in the growing of crops, the raising of livestock, the preparation and serving of food, the selection and construction of clothing, or the general beautification of the farm home.

In the past, it has frequently been difficult for farm boys and girls to gain an appreciation of good music, of books which have stood the test of time, or of the wild flowers and bird life about them. Because of this condition club leaders in 1928 conducted, over the radio, music-memory contests in order that club boys and girls everywhere might

gain a real appreciation of the music written by our best-known composers and something of their lives and the circumstances under which the music was written. By means of the radio, club boys and girls were also given interesting glimpses into the world of literature and of birds and wild flowers, as well as of those other things that enlarge the horizon and give greater meaning to the everyday tasks of field and home.

By such means, club leaders earnestly sought to utilize the radio to its fullest extent in bringing the best to the 664,000 farm boys and girls enrolled in 4-H club work, so that they may be adequately equipped to take their place in community life, whether it be in the open country or the crowded city.

MUSIC

Because training in cooperative effort is an essential feature of the 4-H club program, and because music plays a considerable part in all community gatherings, 4-H club leaders are desirous that farm boys and girls gain early an appreciation of good music. The music-memory contests conducted for the last few years were developed along a variety of lines in 1928. Harmonica bands were organized in large numbers. County song contests in nearly every State were held during the annual club week. The Missouri Home Demonstration Agents' Association provided a silver loving cup as an award for the writing of an original State 4-H club song, and the winning song was made the official 4-H club song of that State.

Many and interesting are the stories telling of ways and means found by the clubs to make it possible to have the music work. Some have told of writing the radio broadcasting stations, sending as their list of request numbers the 4-H music list. The results have been exceedingly gratifying. Some of the clubs have borrowed records from all parts of their communities and used them at meetings in homes where phonographs were available. Others have gone to greater lengths and effort in selling garden seeds, putting on socials, benefit plays, and other entertainments in order to make it possible to have good music. The very efforts required in some cases to make available this activity have shown club leaders how much it has been needed and desired by farm boys and girls.

CAMPS

Reports show that 2,215 camps were held for boys and girls and that approximately 128,116 boys and girls as well as thousands of adults, attended. Agents report that these camps are proving very helpful in the development of 4-H club work. The programs of these camps vary. At some of them the entire time is devoted to recreation, the training of leaders, and a study of nature, whereas at others, in addition to these subjects, intensive instruction during certain periods of each day is given in subject matter concerning their farming and home-making activities as well as in the development of correlated handicrafts.

There is a growing tendency throughout the country toward the ownership and development of permanent camp sites. Many counties which formerly held county camps united in 1928 to hold district camps. Often better equipment, more typical programs, and larger individual camp attendance resulted. However, there was a con-

siderable increase in the number of counties which held county camps for the first time in 1928. In a number of States a 4-H club play day was held for those farm boys and girls who could not attend the county or district camp. The climax to 4-H club camps throughout the United States is the national club camp, in Washington. Each State was entitled to send to this camp four delegates—two boys and two girls—who had done outstanding work.

Closely related to the 4-H club camp is the State short course which is a very valuable meeting for 4-H club members at the State agricultural college. At this time, farm boys and girls meet from every section of the State, come into contact with the personnel of their own State college, receive instruction in many lines of agriculture and home economics, become acquainted with the college laboratories and the equipment of the experimental farm, and are taught new types of recreation by men and women specialists in that line. During 1928, at nearly every State agricultural college such a meeting of farm boys and girls was held.

CLUB DEMONSTRATION TRENDS

Each year a careful study is made of the completed demonstrations in the leading lines of agricultural and home-making club work for farm boys and girls as compared with the number of completed demonstrations conducted in the previous year. Table 6 shows the trend for 1928.

TABLE 6.—*Demonstrations completed by boys and by girls in 4-H clubs in leading lines of work, 1927 and 1928*

Boys			Girls		
Project	Demonstrations		Project	Demonstrations	
	1927	1928		1927	1928
Swine.....	28, 420	29, 710	Clothing.....	145, 913	161, 827
Poultry.....	24, 933	22, 758	Food preparation.....	81, 012	94, 776
Corn.....	21, 428	23, 024	Food preservation.....	59, 979	71, 106
Dairy cattle.....	16, 877	21, 924	Nutrition.....	47, 765	58, 251
Home gardens.....	12, 210	13, 356	Home gardens.....	43, 511	53, 515
Cotton.....	10, 434	18, 001	Poultry.....	31, 823	34, 142
Potatoes.....	9, 510	12, 101	Home furnishings.....	29, 893	36, 153
Nutrition.....	6, 686	4, 539	Home grounds.....	28, 485	39, 686
Beef cattle.....	6, 007	6, 856	Home management.....	13, 765	16, 284

As will be noted, there was a substantial increase in all the home-making club activities completed by farm girls during 1928. The largest enrollment was in clothing club work. Of the 251,154 farm girls enrolled, 161,827 reported having made 511,463 garments, as well as having cared for and repaired an even greater number. As in previous years, ample consideration was given to the selection of clothing, especially in relation to health, harmony of color and design, relative costs, and suitability to occasion. The most significant development in clothing club work during 1928 was the long-time program setting up minimum standards developed by the clothing specialists of the Central States in cooperation with those in charge of girls' club work.

The food club program for 4-H club members during 1928 included the keeping of food and health habits score cards; the raising, canning, drying, and storing of a sufficient amount of food to provide a well-balanced, diversified diet during the nonproducing months; and the preparation and serving of carefully planned meals for the family through the year. In all these activities, encouraging progress was made in improving the food standards of farming communities. Particularly marked improvement was noted in the foods selected for school lunches, club camps, picnics, and other community group meetings. Of the 110,989 farm boys and girls enrolled in gardening club work, 66,851 reported success in the raising of vegetables and fruits as their contribution to the family food supply. Of the 123,814 enrolled in the canning club work, 71,356 reported having preserved 3,356,274 quarts of surplus fruits and vegetables, meats, and fish in addition to the drying of 110,287 pounds, and the curing of 250,811 pounds of meat. Of the 155,938 farm boys and girls learning to demonstrate the preparation of food, 95,702 completed their work in terms of meals prepared, school lunches packed, loaves of bread baked, and public demonstrations given. While the teaching of the simple principles of nutrition was an integral part in all the foregoing phases of the food club program, 62,790 farm boys and girls of the 106,620 enrolled reported having faithfully kept their food and health habits records in accordance with their height and weight findings.

Parallel with the general interest in making the home more comfortable and beautiful and in keeping with the keen interest of the adolescent girl in her later teens, was a substantial increase in the number of result demonstrations in home furnishings and home management. Of the 106,386 farm girls enrolled in these club activities, 52,437 reported many worth-while accomplishments in their own rural homes. The increasing number of boys engaged in this phase of 4-H club work, especially in the beautification of their home surroundings and the making of home furnishings, is an interesting development along this line. Another important development was the emphasis placed by leaders upon happy family relationships, believing that sincere, enthusiastic participation in home affairs, involving a reasonable share of responsibility, is the greatest factor in making for a happy family life.

In the poultry club work, an encouraging increase was noted in the size of the activity. Of the 97,890 farm boys and girls enrolled, 56,900 reported having cared for 1,473,641 birds in addition to the large number of eggs used at home or sold for profit.

In 1928, 40,634 farm boys and girls were enrolled as dairy club demonstrators (fig.16), of whom 29,468 reported having handled a business involving 35,153 dairy animals, exceeding considerably the business for 1927. Dairy club work is becoming increasingly identified with the nutrition program in club work, because of the large financial returns due to the greater use of milk in the diet. The 59,342 reported result demonstrations in home health and sanitation were also closely linked with the dairy club work.

The livestock work of 1928 showed a fairly steady improvement. In the swine club work, 51,753 farm boys and girls were enrolled. Of this number, 32,271 reported having handled 68,483 pigs. In the sheep clubs, of the 7,592 boys and girls enrolled, 5,594 reported having

handled 24,798 sheep. In the baby-beef work, of the 10,275 enrolled 7,938 farm boys and girls reported having handled 10,296 beef animals. Perhaps the most significant development in the livestock work was the establishment of baby-beef feeding schools in Illinois for the purpose of giving to the individual members more opportunity for direct contact with representatives from the university, who made timely suggestions to improve the quality of the work done.

In all crop work during 1928 there was a substantial increase over that of 1927 largely due to the increased aid rendered by the specialist. As in previous years, the demonstrations conducted by farm boys and girls included use of pure seed suited to the location, conservation of soil fertility, use of fertilizers, preparation of the soil and seed bed,

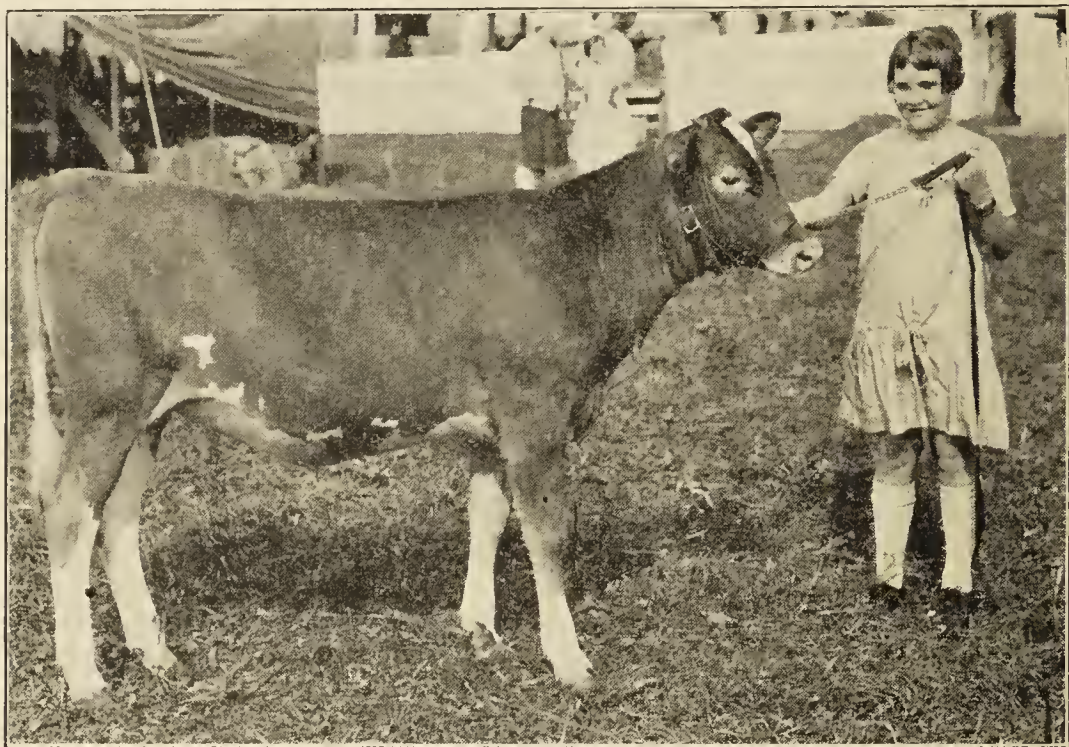


FIGURE 16.—Dairy club girl and her prize-winning Guernsey heifer

cultivation, control of plant diseases and insects, in addition to the preparation of products for market.

Of the 39,094 farm boys and girls enrolled in the corn-club work, 23,633 reported having cultivated 37,025 acres, from which was produced 1,401,254 bushels of corn—a considerable increase over the crop of 1927. Of the 30,379 farm boys and girls enrolled in the cotton-club work, 18,681 reported having cultivated 21,510 acres. There was a large increase in the number of club boys who reported raising a bale of cotton to the acre. In the potato-club work, of the 18,384 boys and girls raising potatoes, 13,277 reported having cultivated 5,799 acres which yielded 686,931 bushels. About a fourth as many young people conducted successful demonstrations in the raising of sweetpotatoes.

The forestry club work deserves particular recognition not only because of the widespread interest manifested in it but because of the methods used in organizing the work and its value from a national standpoint when considered as a part of a long-time agricultural program. In 1928, of the 4,031 farm boys and girls enrolled in forestry

clubs, 2,719 completed their work, which involved 5,585 acres. It is believed that in time forestry will become one of the important phases of club work in terms of enrollment as well as in results attained.

EXPANSION OF THE 4-H CLUB PROGRAM

For many years, it has been believed that 4-H club work should incidentally develop certain activities which would vitalize the long-time club program, particularly during the months when most of the club activities are at a standstill. For this reason, New York State inaugurated a program which had for its purpose three objectives: (1) To encourage a broader study and understanding of agriculture and country life; (2) to give greater emphasis to heart, health, civic, and community-service activities; and (3) to make a more attractive year-round club program. However, no changes in the agricultural or home-making phases of the club program were contemplated. This arrangement makes it possible for a club member of two or three years' standing to continue in the demonstration he has selected and in addition, take up the suggested new activities which have been inaugurated. In addition to the conduct of the demonstration, as in the past, the new plan includes the study and demonstration of certain things related to agriculture and farm life, and the practice of health, heart, and community-service activities definitely suggested. Among them are such things as making a bird house and putting it where birds may make use of it; learning to know and name in winter and summer 10 common forest trees and their value in the farm wood lot; performing some useful service for local club, school, or community, or some act of kindness to the unfortunate; learning how to give first-aid treatment in case of injury; and learning how to administer artificial respiration to a person suffocated by water, gas, or as the result of an electric shock.

In California a similar plan was put into operation in 1928. In addition to the individual demonstration in agriculture or home making, each club member must engage as a member of the club group in some activity of general benefit to the countryside, perhaps involving personal sacrifice. The activities suggested include campaigns for the control of flies, surveys on the use of silos or septic tanks, the planting and care of wayside trees, campaigns for the improvement of home grounds of the community, and rural fire protection through reporting fires and the use of fire-fighting equipment. The third phase of the California plan involves carrying on some activity by each club member for his or her own personal improvement or because of the particular interest that each may have in the subject. Those suggested under this phase include the growth and health development work, first aid, own-your-own-room activities, forestry, and fire control. The fourth (fig. 17) phase is concerned with recreational activities such as club camps, plays, pageants, tours, and social phases. All these phases are duly discussed and considered by the members as a club group before individual choices are made—thus developing still further the spirit of rural cooperation on the part of farm boys and girls.

Another development in 4-H club work during 1928, which has already demonstrated its possibilities in the further expansion of the movement, is that of dividing the program so that a large number of

individual boys and girls may get certain single practice work as a result of their contact with the 4-H club program. For example, one State reported 4,004 club members enrolled and 2,581 completed. In addition to this number, however, there were 496 members reached by single practice work; that is, these young people through the club meeting or club demonstration team or through the club agent's individual activities, received instruction or were given demonstrations in such activities as judging, spraying, and culling of poultry, without the necessity of belonging to the 4-H club and carrying through all the requirements of the program. There are thousands of young farm people who might be interested in some single activity of this sort during the year, who would never be reached through the regular organized club program. In 1928 this work increased to a considerable degree in many sections of the country.

Because of the unusually large number of developments in 4-H club work during 1928 and because of the increasingly large amount of



FIGURE 17.—Four-H club recreational activities include swimming at camp assembly

attention given it by all members of the college extension staffs, as well as by the leading business and professional men and women of the country, the years immediately ahead seem full of promise in affording the farm boys and girls of the United States even greater opportunity and service through the 4-H club movement.

EXTENSION WORK WITH NEGROES

The outlook for negro extension work in the South is most favorable. Not only are the agents getting a clearer conception of the problems to be attacked but they are surrounding themselves with organizations that are aiding in accomplishing the tasks that they have before them, both in adult and junior work. The extension program among the negro agents is gradually changing, as is brought out in the reports and general discussions in the various State conferences. When the negro work first began it was necessary to employ men and women

who had spent a great deal of time as teachers in rural schools. They naturally found it difficult to do practical agriculture and home economics, and it became necessary for the extension service to educate the agents as well as the farmers.

Positions held by this type of agent are gradually being filled by younger men and women who have completed studies in agriculture and home economics and who are much better prepared to take up this work. Another encouraging sign of progress is that negro supervising agents are granted leaves of absence to take up certain studies in order to better prepare themselves for the important work they are doing.

Considerable progress was made by agents in all the Southern States in obtaining good local leaders to assist them in their work. A number of the States found it convenient to form State advisory



FIGURE 18.—Counties having negro extension agents June 30, 1928, are indicated in black

boards or councils. These organizations included rural men and women, and business and professional men. The advisory boards played an important part in bringing about a better feeling among farming people for working together toward mutual ends, and they were a distinct help in developing a satisfying agriculture in community, county, and State. (Fig. 18.)

During 1928 the Cooperative Extension Service employed 160 negro county agricultural agents, 108 negro home demonstration agents, and 3 negro club agents. The important problems dealt with were much the same as those of 1927, namely, the need for more home foods, and feeds, better diversification in production, less erosion causing loss of soil fertility, and better farming operations that would increase earnings, lengthen the period of tenancy, and eventually lead to farm ownership. In relation to the home, much stress was laid by home demonstration agents on improvement in diet, better clothing and housing, more adequate sanitary conditions, and the installing of conveniences intended to make farm home life more attractive. The total number of demonstrations in improved farming and farm living

completed by negro farmers and their families in 1928 was 308,557. These demonstrations were conducted solely by negroes, with the assistance of extension agents, as object lessons in their various communities.

HOME LIFE

One of the main trends of extension work among the negroes was toward a more satisfying farm home life. Better homes, clean and attractive grounds, more home-grown food and, in general, better health conditions were emphasized. Regardless of any particular agricultural or home-economics problem, stress was laid on the improvement of prevailing living conditions. A better expenditure of income derived from cash crops was taught and an effort made to direct this expenditure toward necessities, conveniences, and comfort.



FIGURE 19.—A modern negro home built as the result of extension work

(Fig. 19.) With improved methods of production and the better marketing of products, together with more home-grown foods and feeds, there is an increase in available returns from all cash crops. These returns must be judiciously expended if the best results are to be obtained.

THE HOME FOOD SUPPLY

During 1928, home gardening was included in the work of every home agent. The lack of vegetables in the daily diet of the negro is appalling. Therefore, the growing of fall and winter gardens, as well as the usual spring garden, was especially encouraged. During the year 17,383 demonstrations with home gardens were completed by adults and 17,698 by negro boys and girls. There were 11,979 poultry demonstrations completed by adults and 11,417 by boys and girls. Most of the garden and poultry work was done by women and girls, but every year shows a commendable increase in the number of men that are helping in these home activities.

All home agents encouraged the preservation of fruits and vegetables for winter consumption, this work supplementing the garden demonstrations. There were 12,112 demonstrations in preserving completed by women and 14,744 by girls.

The value of a home garden as a help in the general agricultural work of a county is well illustrated in the case of Mrs. Rachel Anthony, a negro demonstrator in the South. She had growing in her garden on November 11, carrots, parsnips, beets, onions, spinach, turnips, snap beans, butter beans, eggplant, sage, pepper, mustard, parsley, rutabaga, and flowers. Just across the driveway was a beautiful, well-kept orchard. Adjoining her kitchen was a spacious pantry filled with canned products. This demonstrator had worked out a canning budget. She had continued the work almost two years without the assistance of a home demonstration agent. Mrs. Anthony learned the value of home demonstration work, and appeared in the levy court yearly to ask for an agent. The appropriation was at last made and her county now has a home demonstration agent.

Demonstrations for preparing more wholesome and appetizing foods held second place in the activities of home demonstration agents. A better-fed family became the slogan of many negro homes in the South. There were 9,691 food-preparation demonstrations completed by negro farm women and 15,860 by negro farm girls in 1928. That health has a direct relationship to food supply was shown in 6,418 nutrition demonstrations by women and 10,942 by boys and girls. Many negro families know how to "eat for health" that formerly had no conception of the importance of this relationship.

Besides learning the value of proper foods for growth, negro families soon found that the home production of these foods reduced living expenses. They found that the production of better hogs, better cows, and better field crops all helped in the search for better health and better living conditions. The extension service was enabled to emphasize certain farm activities that supplemented the home garden and the poultry yard as sources of home food supplies.

LIVESTOCK

One of the aims of extension work in livestock was to introduce better-bred cattle. Demonstrations of better-bred cows and bulls, were held in most communities, the goal being to place as many purebred sires as the negro farmers could be induced to purchase. Local banks and railroads helped many negro farmers to finance their activities. In this work the 4-H club members were of distinct assistance. Their example caused negro farmers to endeavor to improve their small herds by introducing better blood. There were 5,885 demonstrations conducted by negroes in dairying, and 78 in beef cattle.

The record from one Tennessee county may be considered typical of many others.

In Davidson County, Tenn., 10 grade Jersey calves were grown by 4-H club members. Jack Kinnard, after feeding his calf for four months and deducting \$4 cost price and \$1 per month for pasture, sold the calf for \$14 or a profit of \$6. These calves were from cows that gave 30 pounds of milk a day and will be grown with the idea of placing them in herds.

High-producing cows are all too scarce among negro farmers. The extension agents attempted to teach the people the need of plenty of milk in the diet, especially in the diet of children and the sick. One

of the negro community clubs of Alabama reports a marked increase in its registered Jerseys due almost entirely to the action of a member. The club gives the following report:

Pleas Orr, a club leader in the Harris community, had been trying for eight years to get rid of a herd of scrub cows. However, Mrs. Orr was so devoted to her cows that she couldn't conceive the idea of selling them. It happened that Orr gave his wife a month's vacation last summer and while she was away, he sold all four cows and bought one registered Jersey at a cost of \$150. This cow gives more milk than the four which he sold. Mrs. Orr is now satisfied as the cow is netting her \$12 a month besides furnishing milk for the home. She earned \$6.50 from all four of the scrubs. Plans are being made for other club members to purchase registered Jerseys.

Not only has the Extension Service been concerned with establishing better herds, but it has been active in trying to assist the owners in obtaining a better market for their product. The following report from Dallas County, Ala., shows how the hearty cooperation of the negro farmers and the white and colored extension agents completed a worth-while job.

Dairying is one of the chief enterprises in the county and it was decided that the farmers should have all of the advantages in getting their milk or cream on the market. It was decided to start milk routes in the county where the farmers could sell milk. The white agent and the colored agent worked out sections in the county where the farmers could get this milk to the public highways. There were six trucks put on these milk routes to pick up the milk daily and bring it into the city of Selma to the milk factory. In one section, known as the Tilder community, where there are a great many negroes, a milk wagon was started in July with 23 cans of milk, but after the first month when these farmers got paid off and received \$500 for milk sold, this number was increased to 105 cans daily. They have sold this year \$24,000 worth of sour cream and \$31,000 worth of milk.

That poultry is becoming a thriving industry with the negroes in some sections of the South is shown in the following report coming from a turkey-producing region. Besides showing advancement in the breeding and raising of these fowls, the report notes commendable cooperation in marketing activities.

One of the great events that the colored farmers look forward to is the annual cooperative turkey sale. In 1928 the farmers in Safford and Marion Junction communities sold 10,000 pounds of turkeys cooperatively. On the 17th of November, the white county agents and the farm bureau with the assistance of the colored farm and home demonstration agents put over one of the most successful sales of turkeys that has ever been held in the county. The four poultry cars were placed at Marion Junction and Safford early in the morning. The wagons, buggies, and cars could be seen coming from far away bringing turkeys to sell. Ninety-eight per cent of all of the turkeys belonged to the colored people, for all of the farmers in this section are negroes. They received \$3,500 for turkeys at the rate of 35 cents a pound. This cooperative turkey sale has been held annually for the past three years. Before this sale was developed, the farmers received only an average of 15 cents a pound for their turkeys. One farmer was heard to say, "We are sure glad that you all let this car come every year when we can sell our turkeys for over 15 cents a pound. Now we don't have any trouble in selling them for 30 or 35 cents a pound."

Home agents are making steady gains in the effort to get farm women to see that well-fed, well-housed poultry pays better than those which are neglected. Negro farmers erected 929 poultry houses during 1928. Demonstrations in culling showed how to reduce the feed bill without lowering the egg record. Culling was done during 1928 on 4,597 negro farms. State and Federal extension bulletins proved helpful in this work.

Hog production to increase the home meat supply was encouraged in 1928 just as it had been in 1927. Extension agents gave assistance

to negro farmers in improving their breeding stock and in housing their animals. Feeding schedules were made out and studied, best methods for curing meats were demonstrated, and new and better markets sought for the hogs. There were 1,921 adult demonstrations given in hog production during 1928 and there were 3,078 demonstrations conducted by the boys' pig clubs.

The experience of Claxton Welch in raising a better grade of hog is typical of what many negro farmers are doing. On the advice of the county agent, Welch bought a pig in 1927 so he could enter the pig club. He borrowed the necessary price, \$10, from his father. The pig was a high-grade Duroc-Jersey obtained from a neighbor. When the pig had reached the age of 1 year and 20 days she farrowed 10



FIGURE 20.—Negroes using a modern tractor under instruction of county agricultural agent

pigs. He sold 9 for \$90. She farrowed three times in 15 months and at each farrowing there were 10 pigs. Welch sold 6 of the second litter, netting him \$32. In 1928 he had 15 pigs, valued as follows: 10 of the last litter, \$50; 5 of the first and second litters, \$75; the sow, \$25; all totaling \$150.

SOIL BUILDING

One of the greatest losses experienced by southern farmers is caused by soil erosion, and the negro farmer is especially liable to this loss owing to his shiftlessness and lack of knowledge. The prevention of this waste has always been one of the concerns of southern extension agents. Agents gave direct instruction to negro farmers in the use of the farm level and other instruments necessary for grading and terracing their sloping lands. They taught farmers how to terrace, how to drain when necessary, and what cover crops to use in order to prevent surface washing. Methods of maintaining soil fertility and increasing yields on worn-out soils were demonstrated. All phases of soil building were included in the local programs. (Fig. 20.)

In Fayette County, Tenn., 255 acres were improved during 1928 through terracing and ditching. The results obtained from proper terracing are excellently illustrated in a report from another Southern State:

In Virginia 84 terracing demonstrations were conducted and erosion prevented on 721 acres in six counties. A terracing demonstration conducted on the farm of Bill Williams, Thomas community, Greenville County, caused him to produce two bales of cotton on land that had always overflowed. We estimated the value of this work as being worth \$225 to him this year.

Terracing was conducted on 2,441 farms during 1928; green-manure crops were turned under on 2,577; and improved practices in the use of fertilizer were adopted on 8,340 farms.

CROPS

Besides emphasizing the necessity for negroes to raise their own home food supplies, the Extension Service urged the home production of sufficient feed for all livestock. A large number of demonstrations were conducted with negroes in growing corn, oats, soybeans, peanuts, and cowpeas. As a result of these demonstrations there has been a favorable increase in the quantity and in the quality of crops grown. Many negro farmers are producing practically all the feed necessary for their livestock. Whereas, in past years, it was a common sight to see a large number of wagons loading feed from cars and hauling it to the farms, the farms are now self-sustaining to a marked degree. Crop contests have supplemented the work of demonstrations and have proved to be helpful in teaching the negro his possibilities along this line. The following quotation from a report received from the State of Georgia is typical of much of the progress made throughout the South.

In Chatham County, Ga., the 5-acre contest was made a county-wide objective by the county organizations to get a larger acreage planted, the average being about 2 acres per farm. Thirteen farmers carried these corn demonstrations to completion, seven of whom had never planted as much as 5 acres in corn before. The average production on these demonstrations was $34\frac{1}{2}$ bushels per acre or $14\frac{1}{2}$ bushels more than the average for the State. S. Wilson, one of these demonstrators, took pride in showing his full crib of corn, the first in his 40 years of farming.

Negro men conducted and completed 3,448 corn demonstrations during 1928, negro farm boys held 4,507 demonstrations, and the girls held 148. In one corn club for boys 22 members completed their projects, producing 6,684 bushels of corn valued at \$1 per bushel. The boys used 234 acres of land, the average yield of corn being 28.5 bushels per acre.

CASH CROPS

Improved production of cash crops received much attention by extension agents during 1928. Help was given the negro in standardization, grading, and cooperative marketing of his crops. The leading cash crop of the negro is still cotton, and many serious problems regarding its production arise. Extension agents encouraged farmers to plant pure seed and to establish community standardization of varieties. The thorough preparation of the soil, the proper use of fertilizers, improved methods of cultivation, and proper handling of the resultant crop were all emphasized. (Fig. 21.) After the crop was harvested, the negro was shown how to conserve his soil by the use of cover crops and also the necessity for cleaning his fields of

all stalks, trash, and weeds. During 1928 there were 3,101 demonstrations in cotton production completed by adults and 3,623 by negro boys and girls enrolled in cotton clubs.

The influence that boys' and girls' club work has had upon production is marked. Whenever a club boy succeeds in distancing his father or his neighbors in cotton production, the yields in the neighborhood are sure to increase the next year. Sometimes a boy comes into



FIGURE 21.—County agricultural agent inspecting a demonstration field entered in the 5-acre cotton contest.

direct competition with his father with results that benefit both as shown in the following report:

James Peyton, club boy, Sunflower County, Miss., contested in cotton growing with his father.

The father's acre:

Yield of seed cotton.....	pounds..	981
Gross income, lint and seed.....	dollars..	68. 71
Total expenses, including land rented.....	do....	29. 63
Net profit on acre.....	do....	39. 08

The club boy's acre:

Yield of seed cotton.....	pounds..	3, 260
Gross income, lint and seed.....	dollars..	245. 05
Total expenses, including \$40 for manure.....	do....	74. 20
Net profit on acre.....	do....	170. 85

That many negro farmers are diversifying their farm operations is shown by the following report received from Georgia:

Trist Smith, of Fort Valley, has been a demonstrator for 14 years. Prior to that time he was a share cropper; now he owns 35 acres of land. In 1928 from 10 acres he sold peaches amounting to \$1,400 as well as \$140 worth of melons, \$43 worth of potatoes, \$18 worth of meat, \$540 worth of asparagus, and he had 100 pounds of lard on hand.

At Barnesville, R. Floyd owns a 100-acre farm. From his six Jersey cows, Floyd sold \$501 worth of cream. He also sold from his farm \$114 worth of chickens, grew 400 bushels of corn, 20 bales of cotton, 100 bushels of velvet beans, 90 bushels of wheat, 100 bushels of sweetpotatoes, 60 gallons of syrup, and has killed three hogs. Mr. Floyd has 10 children; 3 have finished college and 4 are in public school at present.

In Monroe County there is an unusual settlement of about 15 families of colored people, who own some 3,500 acres of land upon which they have attractive homes and are carrying out splendid demonstrations in poultry raising, dairying, and general farming, under the supervision of the local agent.

HOME IMPROVEMENT

One negro district agent reported:

Instead of closing the kitchen door to keep the agent out as was the case in former years, the housekeeper nowadays opens the door and asks for assistance in better meal planning, better cooking, and better serving of meals.

Thus, has home improvement, as exemplified by the extension service, spread in its influence and offered ready response to the farm women and girls who have become interested in better homes and all that the term implies. During 1928 much improved equipment was obtained and installed in numerous farm homes. Attention was paid to furniture and furnishings of the home and to the primary appreciation of art. Lawns were cleaned and sodded, and flowers and shrubs were planted in greater profusion than ever before.

How demonstration in home improvement can influence members of a community is illustrated in the following report:

In Tennessee at Alcoa, an aluminum company gave the use of a house (five rooms and bath) to club women as a demonstration home. The company furnished the paint and lumber for building the lattice around the foundation. Club women had the assistance of their husbands and sons for the painting and carpentry work. Town stores lent furniture for the home. As a result of this demonstration, two club members have bought homes and several families have put lattice work beneath their houses, thus doing away with that "flyaway" look worn by the houses which have only foundation pillars.

In another area the following took place:

In Halifax County, Va., Pine Grove community decided to get some worthwhile work done. A program was rendered at the church where a demonstration in the arrangement of a home yard was given by Mr. Asa Sims, of the Hampton Institute staff. Following this, 15 men and women visited 19 homes in the community to see improvements which had been made. All homes and out-buildings were open for inspection. Nineteen homes were whitewashed outside while 12 of them were whitewashed within and without. Three new homes, 1 stable, and 1 poultry house had been built.

All agents have had good results in getting farm women to mend fences, make walks, rearrange or plant flowers and shrubs, plant hedges, and to use more white-wash and paint about their homes within and without.

Of the demonstrations conducted by negro women and girls in 1928, 6,422 in home management were completed by women and 5,268 by girls; in house furnishing, 5,927 by women and 7,244 by girls; and in beautifying the home grounds, 6,974 by women and 9,082 by girls.

CLOTHING

Negro women have always been interested in clothing work. All girls and most women desire the best outfit within their reach at the lowest possible cost. Drafting patterns, dying, renovating garments, millinery, and the proper selection of materials were taught by the extension agents during 1928. The efforts of these agents have met with a ready response on every hand. Many negro women who owned

sewing machines have been given much assistance in the proper operation of them. Through this aid women and girls have been able to dress more economically and at the same time more attractively. Success in making better clothing often led to a desire for better home furnishings and more attractive grounds about the home. The popularity of this work was shown by the fact that there were 8,333 demonstrations in clothing completed by women and 15,699 by girls in 1928.

HOME HEALTH AND SANITATION

Home agents in all the Southern States cooperated with State and local boards of health in the effort to clean up and sanitize rural homes. Campaigns were conducted for removing manure piles, making wells and springs safe sources for the family water supply, and for the building of sanitary toilets. The agents have cooperated with physicians, dentists, and superintendents of schools to make dental clinics and chest clinics successful.

In the matter of diet, much instruction was given. Extension agents impressed the fact that a well-balanced diet was more healthful as well as more economical. The following reports taken at random show what is being done to increase health through the kitchen as well as to reduce living costs.

Well-prepared food and a balanced diet for the farm family is a common problem in each State.

In Arkansas, club members begin intensive practice in bread work each year in December, continuing through the spring months, and closing with a State contest.

In Tennessee, 20 demonstrations were given in the cooking of cereals, beverages, nonstarchy vegetables, cakes, and meats, and on table setting, service, and manners.

In Virginia, the Ashland Club of Hanover County worked on better breakfasts during the first half of the year. Some of the women whose breakfasts had cost 80 cents or more because they were serving hot bread, steaks, chops, and potatoes, along with cereals and coffee, found that they could serve a nutritious breakfast for 25 cents. They used cereals, toast, breakfast bacon, coffee or milk. The last half of the year was devoted to the preparation of lunches with regard to the occupation of the persons to be served.

In many home-management clubs simple rules of health, such as to eat some green vegetable at each meal, drink milk daily, clean the teeth after each meal, sleep in a well-ventilated room, keep bodies clean, and take plenty of outdoor exercise, were adopted and put in force.

During 1928 there were 8,093 adult result demonstrations in health and sanitation and 15,096 in the boys' and girls' club work. The health score card was adopted by 10,799 individuals. Good posture was adopted by 18,062, cold prevention by 21,499, proper elimination by 20,378, and care of teeth by 29,839. Sanitary closets were installed at 3,240 homes and the number of houses screened was 3,049.

FARMERS' INSTITUTES

During the fiscal year ended June 30, 1928, farmers' institutes were officially conducted as a state-wide activity in 13 States. This is two States more than held farmers' institutes in 1927.

As indicative of the desire of farmers in several States to have farmers' institutes in addition to the newer methods of extension or county agent work, attention is called to the fact that in Iowa the State appropriation for farmers' institutes amounting to \$4,323.96 was

supplemented by farmers and other local people in the neighborhood of the institutes, who contributed \$17,714.49, which is over four times the State aid. In Georgia the State appropriation used for farmers' institutes was augmented by twice its amount from private donations, while in Indiana private contributions of \$19,650.70 amounted to nearly one and a half times as much as the State funds spent for farmers' institute work. In Ohio, State farmers' institute funds were almost met by private donations amounting to \$16,185.85.

No changes occurred in the conduct of farmers' institutes during the year. In Illinois, Iowa, and Maine, the only States holding farmers' institutes that are conducted by agencies other than the extension service at the colleges of agriculture, the institutes are so completely lined up with the county agent and other extension forces that they simply supplement, reenforce, and support the organized extension program just as is being done in those States where farmers' institutes are managed by the extension service at the college of agriculture.

In the three States where farmers' institutes were directed and managed by the State department of agriculture or, as in Illinois, by an independent State department of farmers' institutes, 573 institutes were held in 1928, lasting 849 days, with 2,154 sessions, at which the attendance was 258,407. The instruction was given by 420 persons, of whom 119 were members of the Extension Service, 40 from the experiment stations, 20 from the State departments of agriculture, and 241 were mostly farmers and farm women engaged for the purpose because of noteworthy accomplishments on their own farms or in their own homes. The total cost of these institutes was \$64,423.55, derived from special State appropriations for the purpose amounting to \$39,993.96 and \$24,429.59, contributed by farmers and other local people in the neighborhood of the institutes.

In comparison with the 1927 report of farmers' institutes conducted by State departments, an increase was shown in 1928 in the number of institutes, days conducted, sessions held, and attendance at the meetings, but the total cost was less in 1928.

The 10 States conducting farmers' institutes in 1928 under the direction of the colleges of agriculture held a total of 1,972 institutes, which lasted 2,971 days, comprised 6,872 sessions, and were attended by 1,095,436 persons. They employed 339 instructors, of whom 117 were members of the extension force, 34 of the experiment station staffs, 8 from the State departments of agriculture, and 180 from other sources, who were mostly farmers and farm women hired for the purpose during the institute session. The cost of these institutes was \$111,378.59. Of this amount \$73,542.07 was derived from State appropriations for the purpose and \$37,836.52 from other sources, which were mostly local contributions by farmers and others in the regions of the meetings.

In comparison with the previous year's report of farmers' institutes conducted by the colleges of agriculture, the report for 1928 shows a slight gain in the number of sessions held, with an increase of 133,225 persons in attendance and more funds expended for this enterprise.

The 13 States conducting farmers' institutes this year held an aggregate of 2,545 institutes, extending over a period of 3,820 days and comprising 9,026 sessions, at which 1,353,843 persons were in attendance. The instruction at these institutes was given by 759 persons, of whom 236 were members of extension staffs, 74 were from

experiment station staffs, 28 from State departments of agriculture, and 421 from outside sources. Those from outside sources were mostly practicing farmers and farm women, selected and hired during the institute season because of their success and reputation for having actually done the things, which they discussed, on their own farms or in their own homes under normal conditions, as well as for their ability to tell others how they did it. The cost of these institutes was \$175,802.14, of which \$113,536.03 was from State appropriations and \$62,266.11 from local contributions.

ECONOMIC RESULTS

Cooperative extension work was carried on during 1928 by 3,675 county extension agents assisted by the equivalent of 910 full-time subject-matter specialists. This is an increase of 72 county extension agents and 40 specialists over 1927. In the agricultural field, demonstrations in relation to soil improvement, field crops, horticultural crops, crop diseases, forestry, livestock, rodent and insect control, rural engineering, farm management, and marketing of crops and livestock were successfully conducted. In serving the farm home, demonstrations were given in foods and nutrition, clothing, home furnishing and beautification, and health and sanitation. There were 851,526 demonstrations conducted by farmers and farm women in the various phases of farm activities in 1928. The junior demonstration projects as conducted by rural boys and girls numbered 882,795. As a result of these demonstrations, there were 4,662,097 new and improved practices adopted by the different farms and homes in the country.

SOIL IMPROVEMENT

Three principal lines of soil improvement were emphasized in the 1928 extension program in the various States: Lime, fertilization, and green manuring. Twenty-one States reported extension work with lime; 36 States reported work with some phase of the use of fertilizers; 23 States reported extension work with fertilizer improvement work; and 8 States reported extension work with green manure. In addition, 4 States reported work with rotations and tillage.

The work with lime continued to be one of the outstanding phases of soil improvement in the Central and Eastern States, and to some extent in the Southern States. As the development of alfalfa and sweetclover continues, the further use of lime in some form will be needed. It will still be necessary to carry on lime demonstrations, although the principal work with lime during recent years has concerned the problems of developing sources of lime, organizing and distributing lime conveniently for farmers, and the development of storage bins.

Extension work on the use of high-analysis fertilizers began in Ohio and Missouri about 1908. This work has spread, until in 1928, 23 States reported work with fertilizers, almost all of it in connection with demonstrating the value of high-analysis fertilizers. Some States use complete fertilizers, and in a few States home-mixed fertilizers are demonstrated. (Fig. 22.)

Work with green manure was reported definitely in only eight States but was given considerable attention in a number of others, although not reported by the extension agronomist. In a number of

the Central States large acreages of sweetclover are used for green manure, and in some places rye and other grain crops are used. In the Southern States vetch and Lespedeza were used as green-manure crops.

FIELD CROPS

During the year 1928 extension work in field crops and soils was carried on by 107 specialists working in 43 States. Two States put on specialists. Of the 107 specialists, 19 men worked on a part-time basis and 88 men gave their full time to the extension project. Thirty men gave their attention to crop extension, 19 men were strictly soil specialists, and 58 men covered the entire program in soils and crops in their States.

In each of 21 States there was one specialist covering the field of agronomy extension, and in the other 22 States, two or more special-



FIGURE 22.—A cotton-growing demonstration under the direction of the county agricultural agent used to illustrate soil improvement

ists were employed in agronomy. These numbers show a fair increase for the year—an increase of two States with agronomy extension and an increase from 94 to 107 men in the number of workers.

In extension work in field crops the principal problems were the same as reported in 1927: (1) To improve the quality of crops that are grown primarily for direct marketing, and (2) to improve and encourage the production of feed crops to supply from home-grown sources a greater proportion of the feed for dairy, general livestock, and hog production.

The extension work in regard to the first problem, that of improving crops primarily for direct marketing, was carried on through the activities of the seed-improvement program of the various States with the object of crop standardization and adaptation. Thirty-nine States reported definite work in seed improvement. In 29 of these States, the work was done through cooperation with an organized seed-improvement association and in 10 States the work was done in cooperation with individual farmers.

The seed-improvement associations in the 29 States were independent organizations of farmer growers who cooperated with the Extension Service and the experiment station, taking the foundation seed grain as developed by the experiment station, multiplying this grain under careful supervision, and making it available for the use of farmers primarily in their own community and county.

The principal crops handled under this seed-improvement program were corn, wheat and other small grains, and potatoes. Twenty-five States reported extension work in seed improvement with corn, 21 States with wheat, 26 States with other small grains, and 12 States with potatoes. Other miscellaneous crops with which seed-improvement work was carried on are cotton in 7 States, tobacco in 3 States, rice in 1 State, and sugar beets in 1 State.

FEED CROPS

The second important project, that of feed production, centers largely around two phases of the work—legumes and pasture improvement. Extension work with legumes is reported in 38 States, as follows: Alfalfa, 30 States; sweetclover, 26 States; soybeans, 15 States; red clover, 3 States; and Lespedeza in 4 States. Pasture-improvement work was carried on in 18 States.

ALFALFA

Demonstration and production work in alfalfa continued to be the outstanding activity with legumes in all sections of the country except in the Southern States. In most of the States this work went beyond the demonstration stage, and took on more the nature of campaigns to increase the production of alfalfa for livestock, especially in the dairy industry. There were two important phases of this campaign work, one to increase the use of lime as a necessary part of the alfalfa-production program and the other the use of adapted seed, especially in the North Central and Northeastern States.

In the extension work in getting the farmers to use adapted seed, there were two important sources of information as guides to extension workers and farmers as to the origin of alfalfa seed. The first and probably most important was the certification work with alfalfa seed of hardy varieties, as carried on in Idaho, Montana, Utah, and the Canadian Provinces. This work had been so carefully developed by the associations in cooperation with the commercial industries that it was possible for the farmer to buy certified alfalfa seed of known quality and have it delivered to his own farm in the original sealed bags with the guarantee of the association and the producer sealed to the bag.

The other phase of work that made it possible for the farmer to know the origin of his alfalfa seed was the work of verified origin for alfalfa as carried on by the Bureau of Agricultural Economics of the United States Department of Agriculture. This work has been accepted by some 50 commercial seed companies, and as the service becomes better known, both to the extension workers and the farmer, the use of seed of verified origin should increase.

SWEETCLOVER

Sweetclover was the second important legume in the extension program. In 1928 it was used principally for pasture and for soil-improvement purposes and reports showed that sweetclover was grown in much the same territory as alfalfa. Sweetclover has had a tremendous increase in acreage in a good many States. In Illinois, for example, acreage increased from 48,000 in 1919 to 700,000 in 1928.

The requirements for sweetclover are much the same as for alfalfa. In the extension program the use of sweetclover was advocated primarily for pasture and for soil improvement and not to replace alfalfa as a hay crop.

SOYBEANS

Soybeans were the subject of extension work in 15 States. A large increase in soybeans was noted in the Central States in Ohio, Illinois, Indiana, and Missouri. This crop has dropped out of the program very largely in the northern group of States, such as Michigan and Wisconsin, but continues to be one of the principal legume crops of the Southern States, especially Virginia, North Carolina, South Carolina, Georgia, and Alabama. An excellent piece of work with soybeans was that in Illinois where the crop increased from a few thousand acres in 1922 to more than 600,000 acres in 1928.

LESPEDeza

In the Southern States where the lime requirement is so high that it is a serious handicap in the production of many of the legume crops a large amount of work was done with Lespedeza. This work was reported definitely from four States—Mississippi, North Carolina, South Carolina, and Tennessee. Lespedeza grows wild over much of this territory, but during recent years improved varieties have been introduced and have proved so far superior to the common varieties that Lespedeza has been included as one of the legume crops for extension work.

RED CLOVER

The extension work in red clover consisted largely in the development of sources of good seed. If dependable sources of supply can be found, red clover should again become a profitable legume crop for farmers. In Colorado and Idaho centers were developed where red-clover seed of hardy origin could be produced for reshipping to Central and Eastern States for commercial use. In Tennessee important work was done in developing disease-resistant strains of red clover. Some of this work was done in cooperation with Western States; and it was found that disease-resistant seed from Tennessee, if planted in the higher altitudes of the West, would for at least one year produce seed that could be used in such States as Tennessee and Virginia and retain its disease-resistant qualities. This discovery promises to be of value commercially to both seed producers and farmers in sections where red-clover seed is needed in the future.

PASTURE IMPROVEMENT

Pasture-improvement work was reported in 18 States in all sections of the country. In the Southern and Western States this work consisted largely in demonstrations in the seeding of proper grass mix-

tures. Through the experiment stations grass mixtures have been developed for various sections of the country that should prove of value in furnishing large quantities of feed, especially for the dairy industry. In the Central States much of the pasture work concerned the use of such legumes as sweetclover to supplement bluegrass as a pasture crop. Sweetclover has proved of special value during the summer when bluegrass pastures are usually very dry. In the Eastern States, and to some extent in Pennsylvania, Ohio, and West Virginia, much of the work consisted in rebuilding old pastures, principally by the use of commercial fertilizers and lime, but to some extent by reseeding. This work assumed larger proportions than ever before.

WEED CONTROL

Another phase of extension work with crops that was considered in some States is weed control. In many States weeds have become one of the biggest problems of crop production. In 1928 in 11 States, organized work in weed control was carried on by the use of chemicals or by means of proper rotation and cultivation. Weed-control work must be considered in the development of future programs and is destined to be an important project in many States. Two or three States employed men in weed control during 1928.

CORN

An effective means of extension work with corn was the 5 and 10 acre contest projects carried on in Ohio, Indiana, Iowa, and Nebraska. To qualify for the corn contest it was necessary that the grower use good seed and the best methods of cultivation and fertilization. Ohio reported that 217 farmers in 43 counties enrolled in the 10-acre corn project and 101 of them completed the work. Of this group 16 farmers produced 100 bushels or more corn per acre on the 10 acres, the highest yield being that of Ira C. Marshall, of Hardin County, who produced 176.22 bushels per acre on the 10 acres. Indiana reported 727 farmers entering the 5-acre corn contest. Sixty-five farmers produced 100 bushels or more per acre, and 363 farmers produced 75 bushels or more per acre in the contest. In Nebraska 225 farmers entered the contest, and 94 farmers completed the work.

Crop-improvement work with boys' 4-H clubs was reported from six States.

HORTICULTURAL CROPS

Horticultural extension activities are stabilized and change little from year to year. The work expanded, more long-time demonstrations were started, and more specialists were employed than ever before. In many States the demand for horticultural activities was greater than the specialist could meet. This condition shows that horticultural extension has justified itself with that part of the public which it serves. (Fig. 23.)

STATE HORTICULTURAL PROJECTS

Of the 48 States all but Delaware, North Dakota, Colorado, and Nevada had horticultural projects. Even in these four States some of the county agents conducted demonstrations with fruit or vegetables, thus making the horticultural extension nation-wide. This work covered all deciduous fruits, citrous fruits, nuts, vegetables, and

ornamental plants. The increase in number of State projects over that of 1927 was two.

Progress was made with vegetables in the increased use of certified seed, growing of better plants in plant-growing structures, standardized grades and packs, insect and disease control, fertilizing, cover crops, culture, home gardens, and improved marketing methods.

Work with nuts included variety adaptation, top-working seedlings and poor varieties, fertilizing, pruning, cultivating, cover crops, and disease and insect control.

Landscape gardening activities expanded in many States, and there were not enough specialists to conduct one-fourth of the work re-



FIGURE 23.—A well-kept demonstration orchard with rye and clover used as cover crops

quested. Parks, homes, schools, churches, cemeteries, automobile camps, and roadsides received increased attention.

The number of horticultural specialists increased to 78 full-time and 18 part-time men, making a total of 96, an increase of 7 over the number in 1927.

POTATOES

The movement toward organizing an all-southern pool for cooperative buying of certified seed potatoes met a hearty response in the Southern States, and the way seemed open to get the necessary overhead machinery organized to make a modest beginning. The northern and western opposition to the pool in States producing certified potato seed was broken down.

Progress toward organizing large buying and selling pools was very satisfactory until the tremendous crop of table stock broke the market and it never recovered. Many growers lost money on potatoes and lost interest in forming buying and selling pools so the project was not carried further except to keep a few men in nearly every State ready to push it vigorously when the opportune time arrives,

The including of all varieties of potatoes grown in the South broadened the scope of the proposed pool and caused a widespread interest in all northern certified seed-growing States from Maine to Washington and up in British Columbia. At meetings in Wisconsin, Minnesota, North Dakota, Idaho, and Washington, the idea of a certified seed-potato selling pool was presented and discussed. Many growers felt that such a pool was most desirable. Since a pool could not be organized on short notice, they were advised to form small cooperative selling groups and work up into larger ones.

The three principal recommendations made were: (1) The organization of an all-southern pool for purchasing certified seed potatoes, (2) that all varieties of seed potatoes used in the South be included in the



FIGURE 24.—Spraying peach trees with power outfit in a demonstration orchard

pool, and (3) that the Louisiana State Farm Bureau should act in the capacity of purchasing agent for other States until a business organization for the pool is perfected.

TREE FRUITS

The number of method demonstrations given was 18,224, and the number of result demonstrations started was 16,426. (Fig. 24.) Of the result demonstrations, 12,980 were completed, involving 119,665 acres of tree fruits. The number of farms upon which fruit-tree pruning was practiced for the first time was 18,685, and the number of trees pruned was 2,543,538. Spraying was done for the first time on 26,005 farms. The total acreage of orchards on these farms was 266,336. There were 16,171 farms on which some improved practice not mentioned above in growing tree fruits was used for the first time. The total number of farms on which improved practices of all kinds were adopted in connection with tree fruits was 70,766.

In the junior tree-fruit work there were 57 clubs with 1,315 boys and 270 girls. These club members reported a yield of 13,217 bushels of fruit from 530 acres.

GRAPES

With grapes there were 3,416 method demonstrations and 2,175 result demonstrations, of which 1,733 were completed. The completed demonstrations covered 4,644 acres. Grape pruning was done for the first time on 4,855 acres of 4,171 farms. Spraying was done for the first time on 3,699 farms on 13,040 acres of vineyard. The number of farms on which some new practice was adopted other than those just mentioned was 1,647. The total number of farms upon which improved practices were adopted was 10,350.

There were 261 boys and 65 girls in 13 clubs doing work with 47 acres of grapes, and producing 42,329 pounds of fruit.

BUSH AND SMALL FRUITS

There were 2,427 method demonstrations and 2,498 result demonstrations given in bush and small fruit work. Of these 1,758 result demonstrations were completed on 3,652 acres. The number of farms on which bush fruits were pruned for the first time was 2,272, involving 3,819 acres. Spraying was done for the first time on 3,220 farms on 4,278 acres. The number of farms on which some other improved practice was used for the first time this year was 2,395. The total number of farms upon which all improved practices were used this year was 11,637.

In the junior work there were 62 clubs with 757 boys and 167 girls.

These club members had 128 acres of bush and small fruits and produced 82,690 quarts of berries.

MARKET-GARDENING, TRUCK, AND CANNING CROPS

With these crops there were 6,341 method demonstrations and 7,934 result demonstrations given. The number of these completed was 5,760, on 25,739 acres. The number of farms upon which truck-crop spraying was done for the first time was 7,538, and 24,317 acres were involved. One or more improved practices were used for the first time on 23,285 farms.

There were 164 junior clubs doing market-gardening and truck work. The boys in these clubs numbered 1,984, and the girls numbered 666. They grew 711 acres of crops which yielded 55,079 bushels.

HOME BEAUTIFICATION

The home-beautification work grew rapidly. There were 90,484 homes improved by the planting of shrubs, flowers, or trees, or by the making of lawns. This number was reported by 1,347 county and home agents. The Southern States reported 70,614 homes beautified in some way. The Central States had 10,981 homes improved, the Northeastern States had 4,601, and the Western States 4,286 homes improved by some kind of planting.

Texas led all the States with 15,685 landscape plantings, Mississippi was second with 8,345, Oklahoma was third with 8,197, Arkansas was fourth with 7,365, Florida was fifth with 6,117, and South Carolina

was sixth with 5,805. In the Southern States the home agents were particularly active in landscape work. Many of them had 100 to 150 landscape demonstrations in their counties.

In the junior work 1,942 clubs were reported, with 3,716 boys and 71,744 girls, a total of 75,460, enrolled. These were reported by 559 county and home agents.

HOME GARDENS

The number of method demonstrations given in the home-garden work was 22,764, and the number of result demonstrations was 67,316. The number of garden demonstrations completed was 53,490. Spraying was done for the first time on 43,203 gardens. Improved practices were adopted on 147,996 gardens.

In the junior garden work there were 4,022 clubs, with 21,469 boys and 89,520 girls, who grew 74,308 bushels of garden crops.

FORESTRY

Continued progress was made in teaching farm woodland owners the economic importance of growing crops of trees. This progress was reflected in a general increase in all phases of forestry extension during 1928. According to the report of county agricultural agents and extension foresters, 4,510 adult demonstrations were completed or carried out during the year, involving a woodland area of 241,875 acres.

In this extensive program forest-fire protection was of paramount importance. Extension agents emphasized protection in all the 31 States that cooperated with the United States Department of Agriculture through section 5 of the Clarke-McNary Act. Methods of preventing and suppressing fires were demonstrated. The great losses suffered by farmers yearly through woods burning, together with the tremendous value of protection, were emphasized for the purpose of arousing a public sentiment against woods fires. In this project, extension agents cooperated closely with the State forestry organizations carrying on fire-protection work. Tours, campaigns, news stories, radio talks, posters, bulletins, and mimeographed material were all used in spreading information about wood burning.

The thinning of young timber was a major project in 25 States. This work was an outstanding feature of farm-forestry activities in North Carolina. Factors such as good markets and increasing timber values stimulated interest in thinning in the Southern and Eastern States.

Forest management is closely related to timber thinning. In carrying on this project which involves the entire tract of woodlands on a farm, extension agents assisted 5,476 farmers in managing 307,224 acres of woodlands. This total represents a great amount of expended effort. A management demonstration represented the last or the fourth step in forestry teaching. Such a project usually developed in the following order: (1) Investigation, (2) education, (3) demonstration, (4) operation or management.

Timber estimating was successfully demonstrated in most of the timbered States. Closely related to estimating was the problem of marketing farm-timber products, which remained rather perplexing to the farmer. The dissemination of information regarding markets was of great assistance to woodland owners.

The treating of fence posts with creosote to prevent decay met a farm need for durable fence posts. The cost of creosote, however, limited its use and restricted timber-preservation work to States that have a small timber supply.

Extension forestry work with 4-H club boys and girls went forward with marked success in 17 States. Satisfactory projects were developed which included courses of study designed to give the club member a thorough training in the elements of forestry. Practical lessons to work out in the home woodlands were assigned. California, Wisconsin, New Jersey, and New York were leaders in this work. New York worked out a 4-H club program which proved very attractive to the young people. The work covered a period of three years. The first-year work was tree planting, the second year, forest appreciation, and the third year, wood-lot improvement. The schedule of work for each year included courses of instruction and special field days and camps.

The value of 4-H club work in teaching forestry is recognized by the agricultural leaders in the various States. In 1928 an enrollment of 4,031 children was a considerable increase over the membership in 1927. The teaching of extension agents influenced 18,902 farmers to use better forestry practices, an increase of about 3,000 over the number influenced in the previous year.

CROP DISEASES

The aim of extension work in plant pathology is to increase the efficiency of production, to maintain high quality of plant products, and to prevent wastage in storage, in transit, and at the market by assisting farmers to control plant diseases. Each year research workers are adding to the fund of information on plant diseases by bringing out facts concerning the cause of certain diseases, by developing new control measures, and by improving methods already in use on the farm. With this growth of information concerning plant diseases comes the need for active extension work.

Although extension work in crop-disease control was carried on with at least some crops in all the States during 1928, 13 maintained approved Smith-Lever projects and employed one or more extension pathologists. In all, 27 men were engaged in this work in 13 States. One extension pathologist, attached to the Washington office, worked with these State specialists and others interested in crop-disease control and at the same time afforded an active contact between the Office of Cooperative Extension Work and the research divisions of the Bureau of Plant Industry and the State experiment stations.

CONFERENCE ON EXTENSION WORK

Extension pathologists from 10 States met with research workers and representatives of business agencies at the sixth annual conference on extension work held by the American Phytopathological Society. This meeting took place in New York in December as a part of the program of the midwinter meetings of the society. Attention was given to the discussion of ways in which research and extension men can work together in assisting with the production and distribution of disease-free seeds and plants. Progress was made in developing plans for handling extension work on diseases of beans, tomatoes, cabbage, and sweetpotatoes.

PROJECTS ON ALL LEADING CROPS

A review of the important projects for the year would include activities on practically all leading crops. In corn-producing areas control of corn root rot held an important place in the extension program. The introduction of disease-resistant and disease-free seed occupied much attention in vegetable-growing sections. In wilt-affected areas of the Cotton Belt active work was carried on for the purpose of acquainting farmers with the advantages of disease-resistant types of cotton. As in previous years, cereal seed treatment, certified seed-potato production, potato seed treatment and spraying, and orchard spray service continued to be outstanding projects in a number of States.

CORN ROOT ROT

Programs on corn root, stalk, and ear rot control were reported from four States. The work done in Indiana showed what may be accomplished along this line. In that State farm demonstrations have proved that by reducing the prevalence of this disease the farmer may increase his yields 10 bushels or more per acre. In 1928 the project was carried on in 55 counties. Approximately 1,500 farmers attended 24 corn schools which were held in cooperation with the soils and crops department. At these schools the various phases of the corn-root problem were discussed. More than 1,000,000 ears of seed corn were tested in community testing stations, and in addition testing was done by farmers who did not send in records.

DISEASE-FREE SEED

The success which has attended extension work on the production and introduction of disease-free seed potatoes has been mentioned in previous reports. Certain other diseases can be attacked by the same method. For example, in Maryland, during 1928, bean growers were assisted in control of anthracnose by learning the advantages of seed grown in western districts free from this seed-borne disease. In 1926 practically all the seed used in Maryland was grown in the East. In 1928 about 90 per cent of the seed planted was western-grown. Experimental test demonstration planting and field surveys gave proof of the value of this seed, and news articles, addresses, and letters were used to spread the information.

WILT-RESISTANT COTTON

In many sections of the South where cotton profits are materially reduced by wilt, yields were increased by introduction of resistant varieties. In Richmond County, N. C., as a result of extension work during the last few years, more than 5,000 acres of wilt-infested lands were sown to resistant cotton in 1928. Records show that on wilt-infested fields yields may be increased as much as 25 to 100 per cent. The resistant varieties grown are almost as desirable in all other respects as the commonly grown wilt-susceptible cottons.

RADIO USED IN SPRAY SERVICE

An interesting development in connection with orchard spray service was the use of radio to supplement other methods of reaching the farmers. In Ohio three stations were so located that all parts of the State were reached. Information was broadcast three times a

week from each of these stations during the critical apple-scab period. Preceding this time three or four weekly talks were given from the university station. As more than 80 per cent of the farmers who were interested in orchard spray service had radios, broadcasting was an excellent way of getting information to them.

INTERSTATE COOPERATION

With the growth of extension activities in crop-disease control the advantages of interstate cooperation have become increasingly apparent, particularly in orchard spray service, as the principal fruit-producing sections may be contiguous to important fruit-growing areas in one or more adjacent States. This relationship exists in apple sections of Virginia, Maryland, West Virginia, and Pennsylvania. Disease and insect control problems are similar in these areas, hence to avoid confusion on the part of growers it is important that spray recommendations from the different States agree. In 1925, after a conference of men from the several colleges, a committee was formed which has since been made permanent. This committee includes a plant pathologist and an entomologist representing both the station and the extension division of each State. In 1928, as in the two preceding years, the spray programs published by these States and the recommendations sent out in other ways all agreed in their main features.

Another example of interstate cooperation was found in the spring-wheat area, where cooperative relations between extension workers of Montana, Minnesota, North Dakota, South Dakota, the Department of Agriculture, and the Northwest Wheat-Improvement Association were continued in a campaign against stinking smut on wheat.

Because of the fact that some diseases are spread in one State by means of seed or plants procured from another, and that some diseases may be controlled by use of seed from another State which is free from the disease, there are opportunities for cooperation between extension workers in the different States. The year 1928 saw progress along this line, particularly in the forming of contacts between extension workers in potato seed-producing and consuming States and between men interested in the control of bean diseases.

LIVESTOCK

Greater efficiency in production practices and wider spread of knowledge of what the market wants and when it is wanted, were the objectives of the animal-husbandry activities of the year.

County extension agents reported a total of 223,554 farms on which improved practices in the production of beef cattle (fig. 25), sheep, and swine were adopted during the year, as compared to 198,516 in 1927, 171,533 in 1926, 167,462 in 1925, and 170,410 in 1924. This increase is shown to prevail in about equal degree among all classes of farm animals. In the feeding of better-balanced rations for the first time, the records for 1928 show that 35,623 farmers had adopted the practice. This number compares with 34,110 in 1927, 29,430 in 1926, 25,662 in 1925, and 20,352 in 1924.

The number of farmers assisted in obtaining purebred sires during the year was reported as 24,807. The figures for recent years were reported as 24,497 in 1927, 20,378 in 1926, 18,509 in 1925, and 17,603 in 1924.

In junior work, 3,980 livestock clubs were reported, as compared with 4,091 in 1927, 4,477 in 1926, 3,247 in 1925, and 3,288 in 1924. The total number of boys and girls completing their projects was given as 48,233 as compared to 44,341 in 1927, 37,409 in 1926, 31,250 in 1925, and 25,002 in 1924. The number of animals involved in junior club work completed was reported as 117,958, as compared to 110,424 in 1927, 84,727 in 1926, 78,870 in 1925, and 65,404 in 1924.

DAIRY CATTLE

Extension work in dairying, according to the reports of the various specialists, made substantial gains in a general way, in 1928. A majority of the States base their annual programs on a long-time program leading to a definite goal, and each year's work is a continuation



FIGURE 25.—Beef cattle on pasture

of the last. Through this use of sound, fundamental long-time programs, permanent good should result.

The lines of work were centered around four fundamental projects common to practically every State:

(1) Better sires. This project was handled through cooperative bull associations, bull circles, scrub-bull eradication campaigns, assistance in placing individual bulls, proved sires, safe-keeper bull-pen construction, bull trains, or a combination of any or all.

(2) Dairy-herd improvement associations, or other forms of herd records. Every State but one had this project. In addition many other methods were evolved for bringing the value of records of production to the attention of the dairyman. These included cooperative creamery-testing associations, mail-order testing, either as independent units under general direction of a county agent or handled by the county agent, cooperation with Smith-Hughes testing circles, 500-pound cow clubs, and testing demonstrations held by the specialist in connection with feeding schools.

(3) Better feeding. Work on feeding projects was centered largely around feeding schools, or feeding meetings. Results of actual demonstrations in better feeding, especially those obtained through dairy-

herd improvement associations, played a major part in putting over the work in this project.

(4) 4-H dairy-calf clubs. The soundness of the statement that the parents may be reached through the children was demonstrated time and again in calf-club work. This project was almost universal, although in several States it comes under the club department. In such States the dairy specialists cooperated closely and assisted with the fitting, showing, feeding, and judging of the calves.

Additional projects of a secondary nature (fig. 26) were developed in a number of States. Among these was housing, including remodel-



FIGURE 26.—Modern milking machines in operation in a sanitary dairy

ing barns, and furnishing plans and other assistance in the construction of new buildings, such as milkhouses and silos.

Disease control, principally tuberculosis of dairy cattle and contagious abortion, were listed as projects in the Western States and in several of the Northeastern States. This work was done in cooperation with the veterinary forces and consisted in disseminating information and building sentiment for control measures.

In the eastern section of the country, around the market-milk sections, the problem of raising good heifer calves for replacement was acute. This problem was met in a number of States by projects on calf raising based on station experiments proving the practicability of the use of calf rations with milk substitutes.

The manufacturing side of dairying was covered in a number of States by projects. In several Southern States cheese factories were aided, both in getting established and in improvement of quality after they were in operation. Creameries were also assisted by projects designed to make for more efficient plant management and improvement of the product.

BEEF CATTLE

Efforts to control or eradicate diseases and parasites by influencing farmers to use proper precautions and methods of eradication continued to be the major activity in this field. The reports show that in cooperation with veterinary authorities, 19,276 farmers were influenced to have their beef herds tuberculin-tested for the presence of tuberculosis during the year. More than 650 counties were on the "modified accredited" list at the end of 1928 as having less than 0.5 per cent tuberculous infection in their cattle during the year. The entire State of North Carolina was included in this classification and several other States were nearing the same goal. At the suggestion of extension agents 8,957 farmers vaccinated beef cattle as a protection against blackleg during the year, and 5,111 were influenced to feed better-balanced rations for the first time. Beef-cattle club work was completed by 7,938 boys and girls with a total number of 10,296 animals. The more favorable outlook for the beef-cattle industry doubtless was responsible for the increased showing in this field of activity for the year.

SHEEP

The work in sheep production was characterized by a greater intensification of effort along the same lines that have been emphasized during recent years, namely, the use of better breeding rams, the practice of selection and culling, and better feeding and general managements. Several of the States in the farm area launched market-lamb projects in which certain standards of production were set up that showed good results. Club work with sheep was completed by 5,594 boys and girls owning 24,798 animals. Help in obtaining purebred rams was given 6,808 farmers during the year, and 6,454 farmers were induced to do better feeding.

SWINE

The ton-litter and pig crop and the swine-sanitation projects, together with the control of hog cholera were the main activities of the year in this field. Extension agents reported that 64,688 farmers were influenced to treat their hogs as a protection against cholera, and that 23,269 farmers fed better-balanced rations. A total of 68,483 hogs, owned by 32,271 boys and girls, were involved in completed club projects for the year.

The number of official ton-litters reported produced during the year was 492 in 30 States. This was a considerable reduction in the number of litters reaching the goal of a ton or more of pork at 180 days of age. However, the popularity of the so-called pig-crop project, which required the inclusion of all brood sows on an individual farm, was one of the responsible factors. Ten of the States, principally located in the Corn Belt, carried such work as a substitute for or as a desirable follow-up project to the ton-litter club. Then too, it is becoming increasingly difficult for hog raisers to hold their hogs until they are 6 months old if they reach market weights prior to that time. This tendency is a strong testimonial to the efficiency of the ton-litter project as a teacher of better practices in swine production.

POULTRY

Poultry extension work was carried on in all the States by county agents and 76 subject-matter specialists. In three States the special-

ists devoted only half time to the subject of poultry and in three other States the head of the department devoted part time to the project.

The percentage of time devoted to poultry by county extension agents and other specialists in 1928 was reduced from 8.8 per cent to 8.1 per cent. This was a decrease of 0.9 per cent since 1926. Even though less time was spent on the subject of poultry, reports indicated that the number of farms on which improved practices were adopted increased to 260,648 in 1928. This increase in total number was due no doubt to more efficient extension methods, for in an effort to reach more people more demonstrations were held and less service was rendered. For example, 55,443 result demonstrations were held, an increase of 5,341 over the preceding year. There were also held 56,900 junior result demonstrations. Examples of decrease in personal service were shown in statistics on farms assisted to obtain better cockerels and pullets.

With the 4-H club work a slightly smaller number of boys were enrolled, but there was an increase in the percentage completing the work. With the girls there were both a larger enrollment and a larger number completing the work, thus giving a higher percentage of completions. The total enrollment in 1928 was 97,890 which was an almost negligible decrease of 0.008 per cent. The percentage completing their project was 58.1. The average number of birds per member completing was 25.8, which was practically the same as that of 1927. In two States particular emphasis was laid on having a larger unit for the poultry club work. Instead of the boys and girls starting with one or two settings of eggs they took from 100 to 300 baby chicks and a colony brooder house to carry on their project. This was entirely in keeping with the mechanical development of the poultry industry, which showed trends toward larger units and more efficient methods.

The outstanding problem attacked was the more efficient raising of the young stock. The replacement of from 40 to 75 per cent of the pullets was one of the major problems in the keeping of poultry. This question was attacked through the "grow-healthy-chicks" campaigns, which were reported from 10 States in which 2,300,000 chicks were enrolled. A large amount of data have been collected, and their cumulative effect is apparent each year. The grow-healthy-chicks campaign has been carried out for three years in Connecticut, and data are now obtainable showing the increased egg production the following year as a result of certain brooding practices. In Missouri a survey revealed that 33 farms which followed grow-healthy-chicks methods, when compared with those farms which followed ordinary methods, showed an increased return of 80 cents per bird. In the grow-healthy-chicks campaign more use was made of circular letters of the type which state a want and give a solution to the problem. These letters were mimeographed and often printed. The printed letter with proper illustrations was found to be extremely effective.

Demonstration farm-flock records were kept in 28 States. Their function was to make the flockowner realize how more efficient practices really pay him. Data compiled from eight States showed an increase of 10 eggs per hen over the preceding year.

The use of commercial organizations to assist in the extension projects is growing. This tendency was particularly evident in housing where contacts have been made with such associations as retail lumber

dealers, county bankers, and retail hardware associations. In one State a lumber dealers' school was held.

In four States in 1928 record-of-performance associations were started, affording an example of promoting the breeding program by means of a self-supporting association. A heated argument has been going on in the industry concerning the standard breeding plan proposed by the Bureau of Animal Industry of the United States Department of Agriculture. The controversy over the terminology has not been settled, but there is a growing tendency to use the hatchery organizations to assist in promoting high-grade standard-bred stock. In past years considerable time, money, and energy were expended by the extension divisions of various Southern States in a standardization plan, the object being to replace the mongrel flock with the standard-bred flock. This movement was carried on in 1928 in cooperation with the quality hatchery with gratifying results.

Mention should be made of the geographic shift and increased interest in the turkey industry. In one State a "grow-healthy-poultry" campaign was started, and many of the extension specialists used turkeys as a minor project in their program of work. The activities ranged from publicity articles to tours, and in the Northwest particularly cooperative-marketing pools were organized. Experimental work was established by various experiment stations and the United States Department of Agriculture to supply the lack of data on poultry nutrition which hampered the poultry extension specialists.

RODENT CONTROL

It is impossible to separate that part of rodent-control work carried on by the Bureau of Biological Survey in direct cooperation with the Extension Service from the general rodent-control activities of the bureau. The Extension Service, however, cooperated in all the States in which organized rodent control was carried on, and furnished the organization through which a large part of the project was conducted.

Organized rodent-control operations were conducted during the year under the leadership of the Bureau of Biological Survey in 18 States and educational work in 10 others. In this work 83,390 persons affected by rodent infestation cooperated in the campaigns.

In the field operations, 3,306,000 pounds of poisoned bait, 141,580 pounds of calcium cyanide, and 626,463 pounds of carbon disulphide were used in controlling rodent pests on 14,545,591 acres of land. Besides other poisons, more than 88,000 ounces of strychnine were used in the preparation of bait, of which 74,000 ounces were purchased through the bureau from the manufacturers at a considerable saving in cost to cooperators. The saving thus accomplished allowed the cooperative funds available to be used in more extensive operations.

The importance of the results may be judged from replies to a questionnaire mailed to 4,018 cooperators in one State. These estimated that as a result of the year's work in rodent control in that State alone there was a saving in crops, range grasses, and fruit trees of \$474,235. The total cash expenditure for rodent control in that State by all cooperating agencies amounted to \$41,367.

Rodents are of numerous species and so widely distributed that if they were uncontrolled their damage to farm crops and forage would be appalling.

INSECT CONTROL

The predominant problems in insect control varied geographically. In the South the cotton-boll weevil and the pink bollworm were among the most serious pests. There were also insects such as aphids, white flies, the Mexican bean beetle, and the cucumber beetles, that caused heavy losses to vegetable growers. In the Northeastern States, especially in the apple-growing districts, the control of the codling moth was one of the most serious problems. In the North Central States the control of the European corn borer continued to be an ever-increasing problem. The Hessian fly, grasshoppers, and with some exceptions the insects attacking fruit trees seemed to be well under control. In the far Western States control measures were



FIGURE 27.—Dusting cotton with power duster under direction of county agricultural agent

confined largely to the army worm, crickets, leaf hoppers on beets, and the alfalfa weevil.

Demonstrations in dusting with poison for the control of the boll weevil continued as in past years, the principal effort being made in extending the practice of dusting over a larger territory. (Fig. 27.) In Texas and Louisiana some use was made of the airplane to poison large areas.

The Bureau of Entomology of the United States Department of Agriculture is making investigations which it is hoped will further improve the methods already worked out for the control of the Japanese beetle. Demonstrations in the control of insects attacking vegetables were practically the same as had been used in previous years. The demonstrations are necessary to extend the practices.

Many of the fruit-growing States of the East, including such States as New York, Pennsylvania, New Jersey, and West Virginia, endeavored to make more timely and more generally practiced the control measures for the codling moth and other fruit insects. This is accomplished through the dissemination of seasonal information by circular

letter or telephone, or a regularly organized spray service for specialized growers.

In the North Central States, in the control of the European corn borer, the emphasis was placed on territory in which the insect has been longest established. In such regions the attempt was made to establish better farm-management and agricultural practices that would lead to the control of the insect through the elimination of hibernating places that might carry over the insect in some form.

The Mexican bean beetle has spread northward into Ohio, and eastward to the Atlantic coast from Virginia to New Jersey. Spraying with magnesium arsenate has been practiced by commercial growers with good results in many sections of the affected area. The method of controlling the Hessian fly depends upon the fly-free date determined by investigators.

The control of grasshoppers is fairly well established, and only an outbreak of these insects is needed to bring into use the poisoned bran-mash method of control.

In the fruit districts of Michigan and Wisconsin, as elsewhere, well-established methods of spraying for the control of the codling moth and other fruit insects were followed. In the far Western States bait was used for the control of crickets, army worms, and grasshoppers.

The methods of disseminating information concerning insect control were varied. As much as possible the demonstration was used, but attention was called to the material and the methods of preparation and application through the press, circular letters, exhibits, train displays, and lectures. Perhaps the highest type of organized control was in New York State among the apple growers, where many men were employed during the period preceding the blooming stage and the summer months following. The spray ring continued to be advocated and organized in many of the States where fruit growing and potato production were not outstanding specialties.

BEE CULTURE

In several parts of the country in 1928 the work with bees was somewhat hampered by the poor flow of nectar. Alabama, New York, Iowa, South Carolina, North Carolina, Louisiana, Michigan, Ohio, Pennsylvania, and Connecticut developed the work in beekeeping along the lines of management, such as requeening, preparation for the winter, and disease prevention.

In some States much attention was given to stimulating local markets through the help that nutrition specialists could give in the use of honey in cookery. Exhibits in store windows and at fairs were made to stimulate interest in the consumption of honey. In several States, especially in Connecticut, 4-H clubs were organized in beekeeping.

AGRICULTURAL ENGINEERING

In cooperation with leaders in club work the organization of 4-H clubs in agricultural engineering proceeded rapidly during 1928. Considerable difficulty was encountered in developing worth-while engineering projects that appealed to young people; but these difficulties were largely overcome and during the year clubs in such sub-

jects as terracing, woodwork, machine shop, gas engines, and rope making were organized in 10 States.

The control of soil erosion continued to be the major agricultural engineering activity in all areas where the problem of soil erosion is serious. During 1928 terraces and soil-saving dams were constructed on 45,058 farms, preventing erosion on more than 1,349,000 acres, at a cost of from \$5 to \$10 per acre. Many landowners reported that the increased crop yield the first year more than repaid the cost of the improvements.

On 22,287 farms more than 147,600 acres of cultivated land was cleared of stumps and stones. No attempt was made to increase the area cultivated by clearing new land. In connection with this work 1,319,950 pounds of pyrotol, the surplus war explosive, was distributed largely by the extension force. The supply of this explosive available for distribution was exhausted during April, 1928, and after that date most of the land clearing was accomplished by the use of commercial explosives.

Drainage systems were installed on 5,506 farms that drained more than 213,000 acres, and irrigation systems were installed on 2,147 farms that irrigated over 62,000 acres.

The improvement of living conditions on the farm was advanced by extension activities to improve poorly arranged farm homes without modern heating, lighting, and water and sewage-disposal systems. Extension agents reported that 2,565 new dwellings were constructed and 3,825 old dwellings were remodeled in accordance with plans furnished by extension agricultural engineers, and that 4,903 sewage-disposal plants, 3,586 water systems, 589 heating systems, and 3,584 lighting systems were installed in accordance with recommendations made.

Power and labor together represent on the average about 60 per cent of the total cost of carrying on the farm business and, since these two items are directly subject to the control of the farm operator, great opportunities exist for cutting down production costs by a more extensive use of modern farm machinery to replace human labor. More than 18,000 farms employed better types of farm machinery or followed suggestions on the maintenance and repair of machinery through the efforts of the agricultural-engineering extension agents.

The improvement of housing conditions for animals, crops, and equipment received considerable attention from extension specialists. They reported that on 27,574 farms, buildings other than dwellings were constructed or remodeled according to plans furnished by them. Altogether, a total of 140,460 farmers adopted improved agricultural-engineering practices as a result of extension efforts.

FARM MANAGEMENT

The cooperative extension service continued to aid farmers in their farm-management problems by supplying information relating to (1) principles and facts underlying the successful organization and operation of the farm as a business institution, (2) the immediate and long-time outlook for the farm enterprises adaptable to the farmer's conditions, (3) how to keep, analyze, and study records as a means of thinking farm-management problems through clearly and indicating the needed changes, and (4) how to use facts from records and other available information in formulating a plan for each suc-

ceeding years' business activities. The chief problem of the farm manager is to have available sufficient facts at all times for use in his farm-business planning. A clear understanding of his own business, its strong and weak points, is the starting place from which the successful farmer considers changes for improvement.

The State and county extension services disseminate widely the facts regarding the outlook for the farm products of different areas. They also disseminate those facts obtained from records kept by farmers within the different areas that show the successful experiences of farmers in meeting the problems peculiar to a particular area or set of conditions. Such work is constantly in demand for the purpose of pointing out the readjustments in the organization or operation of the farm that will increase profits.

One important phase of this project is the teaching of better farm organization through the keeping of farm accounts. The farm-account work now has the advantage of 15 years of experience in its projection. This background of experience has resulted in the working out of successful methods of procedure in complete form. The full plan is made available to the county agent, not only to show him what is necessary but also the necessary steps and the amount of time required in different seasons of the year. This procedure enables him to fit the project into his full program and to give it the time essential to its success. The same method is followed with the outlook and other phases of the project.

In 1928, 30 States conducted organized farm-management extension programs with one or more men devoting full time to the project. In four other States some work was done by part-time activities of one specialist.

County agents in 1,489 counties reported farm-management extension activities. The county agents in 1,145 counties reported 23,886 farmers keeping records in farm-account books prepared by the State agricultural colleges, and 13,411 of these were assisted in summarizing their accounts.

In 797 counties, 17,541 farmers were assisted in keeping cost-of-production records. The number of meetings and schools conducted by extension specialists was 4,296, with a total attendance of 214,968. In 1,489 counties, county agents assisted 73,815 farmers in adopting improved practices relative to farm management. Meetings dealing with the agricultural outlook were held in 39 States. In 20 States a monthly publication of timely economic information was issued by the subject-matter department or by the extension service, or both. In most States the extension economist in farm management aided in the publication or dissemination of this periodical. In all States that had organized farm-management extension work, attention was given to the organization and analysis of facts for use in the planning of extension programs. Meetings designed especially for presenting facts to farmers and farm women who aid as local leaders in formulating programs were held in a majority of the States.

MARKETING

During 1928 more progress was made in marketing by farmers and farmers' cooperative organizations than in preceding years. The educational efforts of cooperatives through their field service, and of the colleges through their extension forces aided farmers to under-

stand the economic principles involved in the marketing of their farm products; they realized more fully the possibilities and limitations of cooperative marketing, and entered into the business of marketing their farm products conscious of the many problems to be faced.

During 1928 some rather definite trends in cooperative marketing and purchasing were observed: (1) A broader and clearer comprehension of cooperative marketing and purchasing were developed through educational methods, not only among farmers, but among farm leaders. (2) The standardization of grades, packing, and trade practices showed further progress. (3) Cooperative marketing of agricultural products and purchasing of farm supplies reached the practical business stage. (4) Cooperatives accumulated larger surplus funds to tide them over the possible unsatisfactory year. (5) Cooperation among cooperatives tended toward a closer unification of commodity marketing and of the entire agricultural industry. Many bankers and others acquainted themselves with the problems of cooperative marketing, price analysis, business practices, management, and sales policies. As a direct result of their increased knowledge of the movement, these men looked with more favor upon the soundness of cooperative marketing and gave valuable assistance to individual farmers and farm groups.

Market information was supplied farmers through the press and by radio. Department and State publications giving the results of research work bearing upon marketing practices were issued. In some cases farmers and their wives were directly aided in their marketing activities by extension workers, with much success.

In 1928, there were 27 States employing 62 extension specialists. Of this number, 46 gave full time to the work and 16 gave part time. The total appropriations for marketing work increased from \$100,052 in 1925 to \$163,210 in 1928. There were 942 new cooperative associations assisted in being organized during the year, and the total number of associations cooperated with was 3,211. The value of business done by all associations and individuals assisted was \$233,202,000. There was a total saving or profit amounting to \$14,611,000 with these associations due largely to this cooperation. The number of farms and homes assisted with marketing problems was 452,885.

FOODS AND NUTRITION

The foods and nutrition project continued to develop in 1928 along the same fundamental lines which it had followed for several years, but with growing support and success. Since the main purpose of the project was to contribute to the health, working efficiency, and well-being of the rural population, the core of the nutrition teaching was the outward signs of good growth and good nutrition, food selection for the health of the farm family, and the establishment of good food habits. Nutrition teaching was so closely connected with meal planning and with the preparation of the foods essential to health, that it was impossible to separate the food selection and the food preparation aspects of the project as carried on in 1928.

A second object of the project, appropriate in most rural communities, was to obtain the substantial money savings that come from producing an adequate year-round food supply on the home farm and marketing it to the farm family, especially at times when the farmer must sell cheap and buy dear. For economy as well as health, in

localities where this "live well at home program" was economically sound, stress was placed on the production of a home supply of milk, eggs, and meat animals, a well-planned vegetable garden that produces during the entire growing season, proper storage facilities for fruits and vegetables during the nongrowing season, the canning or preserving of perishable fruits and vegetables, and the home curing of meat.

A third objective in many sections was to develop the income-producing possibilities of this same farm and food supply after the family's needs are generously provided for. This was done especially in the Southern States through teaching not only the production but also the grading and packing of vegetables and fruit, dairy and poultry products from the home farm, and standardization of canned products, preserves, jellies, pickles, and baked goods, and through helping farm women and girls to dispose of those on home demonstration curb markets and to private customers, railroads, and automobile tourists.

A fourth objective was to carry good nutrition practices into community housekeeping. Among the activities undertaken by rural women with the help and instruction of extension workers were: Improving the milk supply in quantity and quality, conducting "milk-for-health" campaigns, encouraging a more adequate and sanitary food supply in local stores, serving well-planned meals at community gatherings, improving the menus in local orphanages and almshouses, establishing better facilities for the school lunch, sponsoring conferences on keeping the child well, and directing or encouraging health education in local schools.

The work with 4-H club members was an important part of the project. Great advance in enrollment, interest, and completions was registered in 4-H clubs with girls. This improvement was partly due in some States to the reorganization of foods club work, but all States put forth increased effort to show both girls and home makers the value and the interest of this important line of club work. In addition, local leaders of foods clubs received more careful training from nutrition specialists and agents. Meal-preparation clubs grew in number; in most States all the foods club girls scored their food and health habits for varying periods and participated in the health contests.

The so-called growth work with 4-H club members was rapidly extended to members in other foods clubs and especially to members of boys' clubs. In several States all club members were encouraged to keep the score cards, to have physical examinations, and to enter local and State health contests. Sixteen States enrolled their State health champions in the National 4-H Health Contest at Chicago. The Northwestern States sent their State champions to Portland, Oreg. More training in growth work was given to local leaders than in any previous year, and more team demonstrations were reported in subjects related to growth and health. Increased interest in good posture was reported.

Reports show that in 1928, 40,589 carefully trained local leaders assisted the extension agents in connection with the foods and nutrition project. Under their combined leadership, 493,970 women, 376,883 4-H club girls, and 9,489 4-H club boys were enrolled for work that resulted in better food habits and a more intelligent selection of

foods in 616,508 different homes. Of the number, 102,905 home makers and 4-H club members reported balancing the day's meals for the family for the first time; needed improvements in the feeding of 79,515 children were reported from 35,080 homes; 82,053 persons, including mothers and 4-H club members reported preparing better school lunches to be carried from home; and the authorities of 2,758 schools were induced to serve a school lunch or a hot dish at noon for the first time.

A total of 198,596 women, 154,530 girls, and 1,408 boys were enrolled in activities in which food preparation was emphasized; 172,621 individuals improved their practices of meal preparation and service; and the adoption of improved practices in food preparation was reported from 260,223 different homes. Of these persons, 116,258 reported using new or better methods in bread making, 95,149 in meat cookery, 173,565 in vegetable cookery, and 117,401 in preparing dairy-product dishes. Extension agents, specialists, and trained leaders give 61,763 method demonstrations.

In food preservation, 29,665 method demonstrations were given, and 123,554 women and 123,814 4-H club members were enrolled. A total of 217,022 women and 4-H club members adopted improved practices in preserving fruits and vegetables, and in preserving meats and fish. In 20,125 homes a budget which involved food preservation and the family food supply was made for the first time, and in 20,613 homes better food storage was provided. Improved practices in connection with food preservation were reported from 144,294 homes. This food-preservation work included not only canning, but making jelly, preserves, fruit juices, and pickles, drying fruits and vegetables, and curing meats.

The results of dietary studies with groups of farm families and surveys of the food habits of school children were made available in several States during 1928, and showed that in many rural districts an unbalanced dietary still exists, with deficiencies in one or more food essentials such as iron, calcium, animal protein, and vitamins.

Such studies confirmed the evidence furnished by preliminary checking of the food-selection score card by home makers and 4-H club members and the analysis of menus actually served. These sources of information revealed the need for emphasizing the use of milk, vegetables, and raw foods in most districts, for cutting down on excess starch foods, fats, and sweets in many, and for increasing the amount of animal proteins in a few.

The outward signs of good growth and good nutrition were even more widely taught than in 1927. Photographic enlargements and children carefully selected as "living models" were used to illustrate the points of good growth, good running order, and good posture. This method of approach has aroused and held interest in the food needs of preschool and older children.

Training in the principles of child guidance and habit formation made available to nutrition specialists and home demonstration agents through the scholarships of the Laura Spellman Rockefeller Fund, and the employment in three States of full or part-time specialists in child guidance and parental education, resulted in more attention being given to the psychological problems involved in child feeding.

The preparation of the essential foods required by the food-selection standard received, if possible, still more attention than in the past,

since the improvement of food habits depends largely upon forming new likes for right foods, and since there is still much need for and interest in instruction in proper cooking methods. Contests in salad making, bread making, and the preparation of milk dishes added interest and carrying power to the work.

An interesting method of combining training in meal planning, food preparation, table service, and etiquette with hospitality and sometimes with the raising of money, was devised in the "community meals" project. These object lessons were effective in showing men as well as women that a simple, well-selected, and carefully prepared meal, well served, is more enjoyable than the miscellaneous "spread."

The early and systematic use of sun baths and small doses of cod-liver oil for babies, now recommended by pediatricians, has been widely advocated as a protection against the all-too prevalent rickets and poor teeth seen in school children. Special effort was made to reach mothers of young children.

The "canning budget" and "pantry stores" idea received added emphasis in 1928 with both girls and women. The canning program was planned around the food needs of the family as a part of its nutrition plan. Several striking State fair exhibits showed the farm home with well-planned garden, food supply, canning budget, and a healthy, happy farm family enjoying the benefits of their "live well at home" program.

On the side of methods, leader training was extended and improved, and more attention was given to the supervision of leaders' work. Specialists also trained leaders of 4-H clubs in most States. Publicity was strengthened through the improvement of news articles, circular letters, and exhibits. Circular letters were used by several States to reach the busy mothers of small children.

CLOTHING, TEXTILES, AND OTHER MATERIALS

Home demonstration clubs continued work with clothing, textiles, and other materials in 1928. Through this work rural women developed more confidence in their ability, more skill in making and selecting their clothes, and more pride in the personal appearance of themselves and the members of their families.

Clothing work emphasized the direct relationship between the clothing and health of both adults and children, attention being given to posture, shoes, exercises to strengthen the feet, hosiery, underwear, and children's clothing, including sun suits and layettes. The increased interest in pattern study, methods of pattern alteration, and the problems of fitting, which has been noticeable, does not necessarily mean an increase in the amount of actual clothing construction, but rather the desire of rural women to understand alterations so that they may make a more careful selection of ready-made clothing. Emphasis was placed on design, color, and materials in the selection and construction of appropriate clothing for different types of women.

Three-day clothing schools were held in Maine and New Mexico, at which instruction in pattern drafting and alteration, construction, renovation and remodeling, and finishing was given. Eight States had clothing contests or achievement days at the end of the year's work, and five States conducted fashion shows. In Arkansas the long-time program in clothing for 4-H club girls was extended to cover six years instead of four years. The advanced girls have shown much interest and skill in their garment planning and construction.

Advanced dressmaking, in which a complete costume was assembled, was popular and yielded satisfactory results in Kentucky. In one county in that State 256 women assembled 851 complete spring or summer outfits for themselves or their daughters. In Alabama and Texas clothing for children was studied from the health point of view considering materials, undergarments, top garments, and seam finishes. The millinery project was carried on in many States due to the low cost of attractive hats that could be made easily from felt. One-day, 2-day, and 3-day training schools for leaders were held.

Remodeling demonstrations, which included work in cleaning, dyeing, and remodeling old garments, were conducted in five States. Maine, Montana, New Mexico, and Wisconsin gave demonstrations on the care of the sewing machine and the use of its attachments.

Arkansas, Maryland, and Massachusetts reported much interest in traveling exhibits consisting of models of construction and decorative finishes, garments of different types with patterns attached, and samples of materials suitable for garments for individuals of different ages. Package demonstrations in clothing, house furnishing, and needlecraft were reported by Colorado and Wyoming.

In its "thrift work," Florida utilized sacks for the making of all kinds of house furnishings, including approximately 8,000 articles, such as window shades, bedspreads, couch covers, couch pillows, window curtains, breakfast sets, footstools, lamp shades, and wearing apparel.

Commercial concerns have continued their cooperation in forwarding the clothing work in many States by supplying exhibits of well-made wash dresses, children's clothing, proper shoes for the family, and samples showing construction of finishes for garments. They also loaned materials for use at demonstrations to show the effects of different colors and designs on numerous people.

During the year improved clothing practices were adopted in 320,202 different homes. There were 133,379 women reported who had improved practices in clothing selection and construction, 80,906 who had adopted improved practices in renovation and remodeling, 48,237 who had used them in millinery, 59,950 who had utilized instruction in costume designing, 14,742 who had been helped in infant-wardrobe planning, 35,104 who had been helped in children's wardrobe planning, and 64,774 who had acted on suggestions given by home-demonstration workers in adult-wardrobe planning.

HOME MANAGEMENT

The scope and type of home-management project work as developed with rural women by extension agents changes only slightly from year to year. During 1928 more emphasis was placed on the managerial phases of the project and the development of the home maker's ability to make wise decisions whether related to economic, social, or physical aspects of her home. In previous years most of the subject-matter information dealt with the choice and arrangement of kitchen equipment. In 1928 because of requests for information from home makers, such matters as time schedules, a wise use of leisure, household accounts, and the best way to do certain routine household tasks were drawn into the program.

The problems in home management as reported by extension agents included: (1) Lack of permanent homes, (2) inadequate incomes,

(3) individual differences found in the homes, (4) lack of information as to the real needs.

On this last problem headway was made in every section of the United States. In the West, fact-finding surveys included information on housing and equipment and a minimum cash household budget for the farm home.

The fact information was first obtained through community meetings or by leaders representing communities, and gave a picture of actual conditions. Farm women in conference later drew up recommendations regarding these home-management problems looking forward to solving the problem by developing a long-time program which would eventually bring about higher standards. The minimum cash income set up by farm women, whether they were in the East or West, North, or South, did not differ greatly. The lowest figure, \$1,150, included \$360 for groceries, \$350 for clothing, \$100 for fuel, \$30 for light, \$90 for education, \$50 for health, \$50 for church, \$50 for amusement, and \$70 for upkeep. The highest figure, \$1,465, included \$450 for food, \$400 for clothing, \$125 for fuel and light, \$100 for health, \$150 for operating, etc., \$110 for education, \$60 for church and charity, and \$70 for recreation.

Local training meetings proved successful in home-management project work as in other home demonstration activities. Every State reported work of this kind. Some of the subjects upon which the rural home maker received assistance from extension agents during 1928 were kitchen arrangements or how to save steps, personal efficiency, time schedules, wise use of leisure, color schemes for all rooms of the house (the farm home maker displayed great interest in having her home attractive, restful, and colorful as well as useful), economics of the household, leaks in spending, selection of kitchen and other household equipment, laundry methods, buying, family relationships, house-cleaning methods, and walls, floors, and woodwork.

In the kitchen-improvement work, contests and tours were reported as continuing to bring about the largest number of "improved practices adopted." The contest gave an incentive to finish a piece of work, and the tour made the rural home maker and her husband decide that "if the neighbors can do this, we can also."

Several States reported that advocating the adoption of a single practice produced better results than giving out indefinite general information. The housekeeper grasps easily such advice as: (1) Raise the work table and bottom of sink to height of wrists when arms hang down; (2) have work table on casters so it can be moved near work utensils; (3) move cooking utensils within 6 feet of stove. If this information were put in the form of vague instructions such as "Arrange kitchen equipment to save steps and strength," the home maker would have no definite idea of how to solve the problem. It is worthy of comment that, in connection with home-improvement work, one director reported that the "men attended as well as the women," indicating that they were as interested in home improvement as the women.

Housekeepers' conferences for the purpose of analyzing special household problems were reported as finding favor with rural home makers. The conference met for an all-day session, and the home makers themselves demonstrated the performance of various household tasks in the quickest and best way. Considerable discussion

and interest was aroused, especially on such topics as "how to wash dishes," "the shortest time in which one can wash a certain type of separator satisfactorily," and "how to make a bed the quickest and easiest way." Definite conclusions are reached by the home makers before the conference adjourns.

One State reported 1,800 new power lines established in rural communities during the year. Extension agents appreciate the magnitude of the problem that confronts the rural family in the wise choice and selection of the electrical equipment. A truck equipped with an electrical farm plant was sent through the State, the agricultural engineers giving the information on the installation and upkeep of the electric system, and the home-management specialist discussing the choice and care of household equipment. Electric conferences were initiated in another State to study this problem.

Since home-management project work deals with the managerial activities of the home maker, it is interesting to note that specialists in clothing, home management, foods and nutrition, child guidance, and family relationships cooperated in assisting the home maker with proposed solutions to managerial problems. The attitude of the family toward housework, how the home maker obtains the assistance of various members of the family with household tasks, and the wise use of the leisure time of all members of the family, were some of the managerial problems of the home maker that were considered in the newer phases of the work. As one specialist stated it: "The home-management problem is no longer the problem of the women but now that of the family."

"Achievement-day" programs in home management presented, through songs, plays, pageants, and games, the lessons learned during the year. Posters and exhibits prepared by leaders showed the accomplishments. These exhibits were often on a competitive basis and ranged from miniature kitchens, with the legend "Steps saved are hours gained," to contrasting kitchen-cabinet drawers, one showing well-arranged usable equipment, and the others filled with unused equipment.

Some type of household account work was conducted in almost every State. In some States the work aimed at budgeting and in others it was called "buymanship" and emphasized the consumption of materials. This work went slowly, but home makers testified that it was of the utmost value to them. During 1928, 8,689 home makers and 5,776 4-H club girls kept accounts for the first time and learned what it meant to make a budget and to live by it.

A large number of home makers and girls adopted the ideas presented by extension agents, as shown by the 127,156 home makers enrolled in home-management project work during 1928. A systematized plan of housework was adopted by 22,754 women. The 4-H club girls followed the lead of their mothers, 6,544 adopting the plan of organizing their household duties. In 47,502 homes additional labor-saving equipment was installed, including 3,713 power washers, 6,284 kitchen sinks, and 8,730 electric or gasoline irons.

Extension agents reported that 4,903 sewage-disposal systems, 3,586 water systems, 589 heating systems, and 3,584 lighting systems were installed during the year. There were 2,565 dwelling houses constructed according to extension plans, and 3,825 houses were remodeled. That the farm family was not unmindful of the beauti-

fication of the home grounds is indicated by the fact that 42,378 women completed such work. The number of home-management method demonstrations given by extension specialists and agents was 23,054. A total of 99,156 rural home makers reported that through extension teaching they had received information on home management which had been put into practical use in their homes.

HOME FURNISHINGS

The number of home-furnishing specialists employed in the United States in 1928 was six. The home-furnishing work in general was conducted by the home-management specialist or considered a phase of the work of the clothing specialist. Three home-improvement specialists were employed, who developed the work of beautification of the home grounds and house planning as well as beautification of the inside of the house. Some work was done on home industries in relation to home furnishing.

Extension specialists and agents arrived at the needs of farm women in home-furnishing work by taking surveys or through conferences with representative community women. They found that some of the problems were: (1) Lack of permanent homes, (2) lack of funds available for providing beautiful things in the home as well as necessities, (3) lack of standards, (4) individual differences found in homes.

The leader-training method was used successfully in passing on home-furnishing ideas. This work included the following subjects: Color and design in the home; home dyeing; homemade rugs, curtains, and draperies; furniture arrangement; floor coverings; slip covers; household linens; china, silver, glass, and pottery; pictures; refinishing furniture; basketry, lamp shades, pillows, and cushions; and other accessories.

Four-H club work achieved some excellent results in home improvement, centering around "Own your own room" clubs, which dealt specifically with the girl's bedroom. There are many human-interest stories telling of the results of the work with girls that inspired the family to improve the rest of the house after the daughter had demonstrated what could be done at little cost. Much of the work included getting rid of useless and unattractive articles that had accumulated in the home.

Excellent plays telling the story of the results of home-furnishing work were written by community women and given at achievement-day programs. Statistical reports showed that a large percentage of rural women adopted the ideas advocated by the specialists and home demonstration agents.

Good growth work was included in home-furnishing project work, and the women made an intensive study of mattresses and their relationship to good health. (Fig. 28.)

Exhibits showed the results of the work of the women in refinishing furniture and in making rugs, accessories, and the like. Tours were made to homes, and both the inside and the outside of the houses were inspected. Many agents cooperated with "better-homes" campaigns.

The beautification of the home grounds resulted in many trees, shrubs, and flowers being planted, walks being made, and in general the home grounds being made beautiful. Contests, flower shows, and demonstration homes materially helped this work.

HOME HEALTH AND SANITATION

Positive health standards and household sanitation were emphasized by home demonstration agents and health specialists in 1928. The projects of food preparation, gardening, nutrition, clothing, home management, and rural engineering were closely correlated with those of health and sanitation. Such phases of home health and sanitation as home care of the sick, sick-room equipment, first aid in emergencies, well-equipped medicine chests, antidote charts, personal and community hygiene, and prenatal and postnatal care of mothers and infants received increased attention.

Public health officers, local doctors, nurses, and dentists cooperated with the home demonstration agents by examining children and send-



FIGURE 28.—Good house furnishings. A reading group with good light, planned with the help of the home demonstration agent

ing health charts to the parents stating the defects that should be corrected. Georgia reported clinics where children were treated for eye trouble, and tonsils and adenoids were removed.

The 4-H club "growth week" continued to be popular. Health contests for 4-H club members were held in several States. In Arizona this project was so successful that the State legislature passed a law making health study compulsory in all the schools.

In North Dakota the year's health project was divided into six lessons, to include numerous health influences for the home maker and for all others for whom she makes a home. The subjects discussed were positive health for the home maker, positive health for the child, training the health habits of the preschool child, relation of clothing to health, health practices for the home maker in her work shop, and helping the adolescent to develop a wholesome personality. Fifty-eight communities in California established loan closets containing

such articles as bed blocks, bedside tables, back rests, leg and knee cradles, and small pieces of sick-room equipment, which are lent to any member of the community needing them.

A marked increase was noted in the number of individuals adopting such improved practices as the sanitary disposal of sewage. Many houses were screened, and other methods were used to control flies, mosquitos, and other insect pests. In parts of Florida where malaria and hookworm are a menace earnest effort was given to the eradication of disease-carrying insects and their breeding places, and to the sterilization of polluted soils where there was an evidence of hookworm.

Considerable interest was shown in water systems for the rural home. A "home-convenience" truck on which were a kitchen, a bathroom, a well pump with a compression tank, and a lighting system, was the means employed in Michigan to arouse interest and to stimulate action in the installation of conveniences. In Illinois water-system and septic-tank installation demonstrations were held in seven counties. Several different types of water and plumbing systems were mounted on a truck so that actual equipment was demonstrated and operated at each meeting.

There were 25,387 result demonstrations relating to home health and sanitation conducted by rural women and 59,342 by members of 4-H clubs in 1928. Sanitary closets or outhouses were installed in 15,087 homes, and cooperation was given in the placing of sewage-disposal systems on 4,903 farms. The number of houses screened because of extension influence was 11,347, and homes where other control measures were used to control household insect pests numbered 23,669. In 94,219 homes health conditions were reported to have been improved, and in 85,468 homes improved sanitary practices to safeguard the health of the family were adopted.

STATISTICS

[Funds for extension work are appropriated for fiscal years ending June 30, whereas extension agents are required to prepare their reports for calendar years. For this reason the statements of funds expended are for the fiscal year ended June 30, 1927, and the statistics of results of work done are for the calendar year ended December 31, 1927]

TABLE 7.—Statistical summary of results of cooperative extension work, 1928

Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents ¹		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
General:								
County associations fostering extension work.....	1, 726	2, 106	702	1, 053	29	36	2, 457	3, 195
Membership in these associa- tions.....	1, 707	491, 527	668	118, 931	25	7, 951	2, 400	618, 409
Communities in counties.....	2, 331	48, 226	1, 097	31, 143	139	7, 728	3, 567	87, 097
Communities with extension program.....	2, 214	33, 385	1, 072	20, 416	132	4, 800	3, 418	58, 601
Voluntary local leaders—								
Adult.....	2, 135	129, 070	955	49, 624	18	865	3, 108	179, 559
Junior.....	2, 025	34, 009	869	17, 437	145	6, 812	3, 039	58, 258
Adult clubs.....	1, 518	17, 348	1, 055	18, 596	11	264	2, 584	36, 208
Membership in adult clubs.....	1, 198	503, 688	1, 058	393, 420	21	10, 420	2, 277	907, 528

¹ Includes a small amount of work in counties without extension agents, reported by State club leaders.

TABLE 7.—*Statistical summary of results of cooperative extension work, 1928—Con.*

Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
General—Continued.								
Junior clubs.....	2, 125	24, 079	962	14, 168	154	8, 424	3, 241	46, 671
Enrollment—								
Boys.....	2, 099	213, 427	212	8, 985	157	48, 122	2, 468	270, 534
Girls.....	1, 574	121, 639	981	213, 573	160	58, 194	2, 715	393, 406
Completions—								
Boys.....	1, 983	135, 775	181	4, 786	154	34, 508	2, 318	175, 069
Girls.....	1, 481	89, 146	920	138, 998	158	44, 366	2, 559	272, 510
Number of junior judging teams trained.....	1, 267	4, 635	355	2, 289	114	1, 024	1, 736	7, 948
Number of junior demonstra- tion teams trained.....	1, 168	9, 006	591	7, 949	111	1, 677	1, 870	18, 632
Farm visits made.....	2, 410	1, 435, 234	174	19, 745	127	51, 531	2, 711	1, 506, 510
Different farms visited.....	2, 354	742, 779	155	12, 192	124	25, 729	2, 633	780, 700
Home visits made.....	974	113, 451	1, 107	287, 836	110	31, 146	2, 191	432, 433
Different homes visited.....	956	69, 847	1, 083	165, 094	108	16, 570	2, 147	251, 511
Office calls.....	2, 396	3, 194, 033	1, 091	459, 249	135	34, 288	3, 622	3, 687, 570
Telephone calls.....	2, 276	2, 045, 348	1, 057	461, 449	135	50, 102	3, 468	2, 556, 899
Percentage of time in field.....		66		70		67		67
Percentage of time in office.....		34		30		33		33
Number of news articles pre- pared for the press.....	2, 338	275, 821	1, 059	84, 814	130	10, 696	3, 527	371, 331
Individual letters written.....	2, 410	3, 292, 940	1, 109	1, 054, 374	140	163, 343	3, 659	4, 510, 657
Number of bulletins distributed.....	2, 296	3, 723, 388	1, 065	1, 662, 987	124	222, 229	3, 485	5, 608, 604
Junior leader-training meetings held.....	1, 321	7, 069	537	3, 613	118	890	1, 976	11, 572
Attendance.....	1, 297	61, 457	529	25, 211	115	12, 453	1, 941	99, 121
Adult leader-training meetings held.....	1, 264	20, 080	708	11, 074	13	176	1, 985	31, 330
Attendance.....	1, 255	101, 919	701	119, 366	12	1, 338	1, 968	312, 623
Method and result demonstra- tions:								
Meetings held.....	2, 251	192, 615	1, 042	229, 507	120	15, 871	3, 413	437, 993
Attendance.....	2, 232	3, 678, 082	1, 031	3, 314, 493	120	249, 009	3, 383	7, 241, 584
Number of junior club encamp- ments held.....	1, 158	1, 406	527	632	100	177	1, 785	2, 215
Total attendance.....	1, 156	88, 934	522	51, 234	100	15, 366	1, 778	155, 534
Number of women's club en- campments held.....	158	182	356	375	6	9	520	566
Total attendance.....	158	22, 266	353	46, 381	5	798	516	69, 445
Total number of all meetings.....	2, 251	366, 247	1, 042	283, 382	118	33, 676	3, 411	683, 305
Total attendance.....	2, 232	14, 646, 675	1, 031	6, 511, 398	118	793, 244	3, 381	21, 951, 317
Meetings at which lantern slides were shown.....	751	5, 429	210	1, 358	64	539	1, 025	7, 326
Meetings at which motion pic- tures were shown.....	1, 242	18, 371	331	1, 966	80	811	1, 653	21, 148
Soils:								
Adult result demonstrations.....	1, 739	59, 500			9	635	1, 748	60, 135
Farms on which advice in use of commercial fertilizer was fol- lowed.....	1, 727	164, 345			7	532	1, 734	164, 877
Farms on which lime or lime- stone was used as advised.....	1, 347	46, 910			6	243	1, 353	47, 153
Farms on which better care of farm manure was taken.....	1, 231	46, 978			3	170	1, 234	47, 148
Farms on which green-manure crops were plowed under.....	1, 356	38, 577			2	60	1, 358	38, 637
Farms on which other improved soils practices were adopted.....	867	49, 515					867	49, 515
Different farms on which better practices were adopted.....	2, 133	305, 501			10	990	2, 143	306, 491
Corn:								
Adult result demonstrations.....	1, 424	21, 289			4	17	1, 428	21, 306
Junior projects completed ²	1, 144	22, 292			70	1, 341	1, 214	23, 633
Farms on which improved seed was planted.....	1, 433	50, 089			17	314	1, 450	50, 403
Farms on which seed selection was practiced.....	1, 224	25, 110			15	121	1, 239	25, 231
Farms on which other improved practices were adopted.....	608	29, 739			5	154	613	29, 893
Different farms on which better practices were adopted.....	1, 803	125, 059			29	639	1, 832	125, 698

² Boys' and girls' club members.

TABLE 7.—*Statistical summary of results of cooperative extension work, 1928—Con.*

Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Wheat:								
Adult result demonstrations.....	668	6, 854	-----	-----	1	1	669	6, 855
Junior projects completed ²	49	295	-----	-----	2	15	51	310
Farms on which improved seed was planted.....	766	13, 924	-----	-----	3	24	769	13, 948
Farms on which seed selection was practiced.....	254	2, 562	-----	-----	-----	-----	254	2, 562
Farms on which seed was treated for smut.....	704	24, 126	-----	-----	1	6	705	24, 132
Farms on which other improved practices were adopted.....	260	9, 036	-----	-----	1	14	261	9, 050
Different farms on which better practices were adopted.....	1, 110	48, 434	-----	-----	4	26	1, 114	48, 460
Oats:								
Adult result demonstrations.....	752	4, 687	-----	-----	2	3	754	4, 690
Junior projects completed ²	55	283	-----	-----	-----	-----	55	283
Farms on which improved seed was planted.....	796	15, 468	-----	-----	1	3	797	15, 471
Farms on which seed selection was practiced.....	203	2, 086	-----	-----	-----	-----	203	2, 086
Farms on which seed was treated for smut.....	688	18, 714	-----	-----	1	75	689	18, 789
Farms on which other improved practices were adopted.....	259	6, 855	-----	-----	-----	-----	259	6, 855
Different farms on which better practices were adopted.....	1, 216	40, 772	-----	-----	3	80	1, 219	40, 852
Rye:								
Adult result demonstrations.....	216	1, 953	-----	-----	-----	-----	216	1, 953
Junior projects completed ²	5	29	-----	-----	-----	-----	5	29
Farms on which improved seed was planted.....	259	4, 555	-----	-----	-----	-----	259	4, 555
Farms on which seed selection was practiced.....	53	290	-----	-----	-----	-----	53	290
Farms on which other im- proved practices were adopted.....	86	1, 125	-----	-----	-----	-----	86	1, 125
Different farms on which better practices were adopted.....	361	8, 330	-----	-----	-----	-----	361	8, 330
Barley:								
Adult result demonstrations.....	428	3, 550	-----	-----	-----	-----	428	3, 550
Junior projects completed ²	14	72	-----	-----	-----	-----	14	72
Farms on which improved seed was planted.....	525	9, 987	-----	-----	-----	-----	525	9, 987
Farms on which seed selection was practiced.....	151	1, 582	-----	-----	-----	-----	151	1, 582
Farms on which other improved practices were adopted.....	123	1, 397	-----	-----	-----	-----	123	1, 397
Different farms on which better practices were adopted.....	700	15, 974	-----	-----	-----	-----	700	15, 974
Other cereals:								
Adult result demonstrations.....	269	1, 985	-----	-----	-----	-----	269	1, 985
Junior projects completed ²	125	2, 266	-----	-----	3	404	128	2, 670
Farms on which improved seed was planted.....	242	5, 831	-----	-----	-----	-----	242	5, 831
Farms on which seed selection was practiced.....	142	1, 563	-----	-----	-----	-----	142	1, 563
Farms on which other improved practices were adopted.....	116	2, 376	-----	-----	-----	-----	116	2, 376
Different farms on which better practices were adopted.....	371	11, 599	-----	-----	-----	-----	371	11, 599
Alfalfa:								
Adult result demonstrations.....	1, 071	14, 705	-----	-----	3	6	1, 074	14, 711
Junior projects completed ²	39	221	-----	-----	4	44	43	265
Farms on which improved seed was planted.....	976	22, 682	-----	-----	2	19	978	22, 701
Farms on which seed selection was practiced.....	105	1, 347	-----	-----	1	5	106	1, 352
Farms on which inoculation for this crop was practiced.....	1, 050	22, 892	-----	-----	5	260	1, 055	23, 152
Farms on which other improved practices were adopted.....	507	12, 316	-----	-----	1	14	508	12, 330
Different farms on which better practices were adopted.....	1, 499	54, 308	-----	-----	6	270	1, 505	54, 578

² Boys' and girls' club members.

TABLE 7.—Statistical summary of results of cooperative extension work, 1928—Con.

Project or line of work	Reported by county agricultural agents		Reported by home demonstration agents		Reported by club agents		Total of all lines of work	
	Agents reporting	Number	Agents reporting	Number	Agents reporting	Number	Agents reporting	Number
Soybeans:								
Adult result demonstrations.....	877	14,323					877	14,323
Junior projects completed ²	122	1,058			1	7	123	1,065
Farms on which improved seed was planted.....	758	20,786					758	20,786
Farms on which seed selection was practiced.....	271	4,518					271	4,518
Farms on which inoculation for this crop was practiced.....	741	17,285			2	38	743	17,323
Farms on which other improved practices were adopted.....	363	10,266					363	10,266
Different farms on which better practices were adopted.....	1,211	49,805			2	38	1,213	49,843
Sweetclover:								
Adult result demonstrations.....	776	6,940			1	8	777	6,948
Junior projects completed ²	14	32					14	32
Farms on which improved seed was planted.....	582	10,317			1	8	583	10,325
Farms on which seed selection was practiced.....	115	1,064					115	1,064
Farms on which inoculation for this crop was practiced.....	766	13,731			2	26	768	13,757
Farms on which other improved practices were adopted.....	304	6,766					304	6,766
Different farms on which better practices were adopted.....	1,160	29,354			2	26	1,162	29,380
Crimson clover:								
Adult result demonstrations.....	140	942					140	942
Junior projects completed ²	2	32					2	32
Farms on which improved seed was planted.....	92	771					92	771
Farms on which seed selection was practiced.....	21	66					21	66
Farms on which inoculation for this crop was practiced.....	78	439					78	439
Farms on which other improved practices were adopted.....	39	543					39	543
Different farms on which better practices were adopted.....	186	1,967					186	1,967
Clover (red, alsike, white):								
Adult result demonstrations.....	304	2,458			1	1	305	2,459
Junior projects completed ²	1	1					1	1
Farms on which improved seed was planted.....	254	5,393			1	1	255	5,394
Farms on which seed selection was practiced.....	57	613					57	613
Farms on which inoculation for this crop was practiced.....	225	2,816			1	40	226	2,856
Farms on which other improved practices were adopted.....	121	2,201					121	2,201
Different farms on which better practices were adopted.....	490	10,635			2	41	492	10,676
Cowpeas:								
Adult result demonstrations.....	438	6,356			1	1	439	6,357
Junior projects completed ²	78	757					78	757
Farms on which improved seed was planted.....	243	4,845					243	4,845
Farms on which seed selection was practiced.....	99	1,374			1	12	100	1,386
Farms on which inoculation for this crop was practiced.....	139	1,560					139	1,560
Farms on which other improved practices were adopted.....	141	3,377					141	3,377
Different farms on which better practices were adopted.....	546	14,630			2	13	548	14,643
Velvet beans:								
Adult result demonstrations.....	219	2,809					219	2,809
Junior projects completed ²	14	156			1	5	15	161
Farms on which improved seed was planted.....	1,120	1,238			1	1	121	1,239
Farms on which seed selection was practiced.....	64	434					64	434
Farms on which inoculation for this crop was practiced.....	23	96					23	96

² Boys' and girls' club members.

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Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Velvet beans—Continued.								
Farms on which other improved practices were adopted.....	55	615	-----	-----	-----	-----	55	615
Different farms on which better practices were adopted.....	246	4, 993	-----	-----	1	4	247	4, 997
Field beans:								
Adult result demonstrations.....	129	1, 170	-----	-----	-----	-----	129	1, 170
Junior projects completed ²	35	321	-----	-----	19	143	54	464
Farms on which improved seed was planted.....	110	2, 079	-----	-----	2	8	112	2, 087
Farms on which seed selection was practiced.....	55	501	-----	-----	-----	-----	55	501
Farms on which inoculation for this crop was practiced.....	33	357	-----	-----	1	1	34	358
Farms on which other improved practices were adopted.....	62	1, 600	-----	-----	-----	-----	62	1, 600
Different farms on which better practices were adopted.....	181	5, 046	-----	-----	3	26	184	5, 072
Peanuts:								
Adult result demonstrations.....	279	2, 682	-----	-----	-----	-----	279	2, 682
Junior projects completed ²	291	3, 003	-----	-----	4	107	295	3, 110
Farms on which improved seed was planted.....	195	2, 600	-----	-----	1	10	196	2, 610
Farms on which seed selection was practiced.....	125	1, 410	-----	-----	1	18	126	1, 428
Farms on which inoculation for this crop was practiced.....	24	222	-----	-----	-----	-----	24	222
Farms on which other improved practices were adopted.....	109	1, 461	-----	-----	1	15	110	1, 476
Different farms on which better practices were adopted.....	344	7, 956	-----	-----	1	65	345	8, 021
Lespedeza:								
Adult result demonstrations.....	389	3, 585	-----	-----	1	8	390	3, 593
Junior projects completed ²	3	3	-----	-----	-----	-----	3	3
Farms on which improved seed was planted.....	230	3, 874	-----	-----	1	6	231	3, 880
Farms on which seed selection was practiced.....	68	605	-----	-----	-----	-----	68	605
Farms on which inoculation for this crop was practiced.....	39	173	-----	-----	-----	-----	39	173
Farms on which other improved practices were adopted.....	114	1, 733	-----	-----	-----	-----	114	1, 733
Different farms on which better practices were adopted.....	441	9, 141	-----	-----	1	8	442	9, 149
Pastures:								
Adult result demonstrations.....	819	9, 463	-----	-----	1	6	820	9, 469
Junior projects completed ²	8	33	-----	-----	-----	-----	8	33
Farms on which improved seed was planted.....	370	6, 143	-----	-----	1	4	371	6, 147
Farms on which seed selection was practiced.....	45	496	-----	-----	-----	-----	45	496
Farms on which inoculation for this crop was practiced.....	92	664	-----	-----	-----	-----	92	664
Farms on which other improved practices were adopted.....	302	6, 447	-----	-----	-----	-----	302	6, 447
Different farms on which better practices were adopted.....	916	20, 694	-----	-----	1	6	917	20, 700
Other legumes and forage crops:								
Adult result demonstrations.....	320	6, 020	-----	-----	-----	-----	320	6, 020
Junior projects completed ²	23	209	-----	-----	1	5	24	214
Farms on which improved seed was planted.....	183	5, 894	-----	-----	-----	-----	183	5, 894
Farms on which seed selection was practiced.....	59	865	-----	-----	-----	-----	59	865
Farms on which inoculation for this crop was practiced.....	166	5, 580	-----	-----	1	1	167	5, 581
Farms on which other improved practices were adopted.....	134	3, 143	-----	-----	-----	-----	134	3, 143
Different farms on which better practices were adopted.....	407	17, 144	-----	-----	1	1	408	17, 145

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Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Potatoes:								
Adult result demonstrations.....	1, 049	12, 364			3	82	1, 052	12, 446
Junior projects completed ²	597	9, 520			108	3, 757	705	13, 277
Farms on which improved seed was planted.....	1, 093	35, 479			52	786	1, 145	36, 265
Farms on which seed selection was practiced.....	554	7, 916			37	529	591	8, 445
Farms on which seed was treated for disease.....	1, 013	21, 632			38	623	1, 051	22, 255
Farms on which spraying or dusting for disease and insects was practiced.....	837	20, 600			34	385	871	20, 985
Farms on which other improved practices were adopted.....	415	13, 688			20	220	435	13, 908
Different farms on which better practices were adopted.....	1, 466	82, 470			68	1, 780	1, 534	84, 250
Sweetpotatoes:								
Adult result demonstrations.....	392	4, 112					392	4, 112
Junior projects completed ²	280	2, 325			12	246	292	2, 571
Farms on which improved seed was planted.....	297	4, 420			3	21	300	4, 441
Farms on which seed selection was practiced.....	248	3, 219			1	10	249	3, 229
Farms on which seed was treated for disease.....	314	5, 788			2	12	316	5, 800
Farms on which spraying or dusting for disease and insects was practiced.....	80	3, 701					80	3, 701
Farms on which other improved practices were adopted.....	164	4, 091			1	25	165	4, 116
Different farms on which better practices were adopted.....	547	18, 038			3	39	550	18, 077
Cotton:								
Adult result demonstrations.....	677	19, 071					677	19, 071
Junior projects completed ²	596	18, 395			7	286	603	18, 681
Farms on which improved seed was planted.....	591	31, 526			2	14	593	31, 540
Farms on which seed selection was practiced.....	309	7, 746			2	9	311	7, 755
Farms on which seed was treated for disease.....	57	708			1	1	58	709
Farms on which spraying or dusting for disease and insects was practiced.....	369	10, 970					369	10, 970
Farms on which other improved practices were adopted.....	265	18, 547			2	7	267	18, 554
Different farms on which better practices were adopted.....	757	78, 868			2	19	759	78, 887
Tobacco:								
Adult result demonstrations.....	228	2, 863					228	2, 863
Junior projects completed ²	102	1, 167			1	26	103	1, 193
Farms on which improved seed was planted.....	110	2, 194			1	5	111	2, 199
Farms on which seed selection was practiced.....	65	1, 580					65	1, 580
Farms on which seed was treated for disease.....	96	4, 963			1	6	97	4, 969
Farms on which spraying or dusting for disease and insects was practiced.....	103	2, 099			1	7	104	2, 106
Farms on which other improved practices were adopted.....	97	3, 212					97	3, 212
Different farms on which better practices were adopted.....	267	15, 190			1	20	268	15, 210
Other miscellaneous crops:								
Adult result demonstrations.....	184	2, 163					184	2, 163
Junior projects completed ²	66	690			5	63	71	753
Farms on which improved seed was planted.....	114	3, 563					114	3, 563
Farms on which seed selection was practiced.....	68	1, 224					68	1, 224
Farms on which seed was treated for disease.....	45	633					45	633

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Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Other miscellaneous crops—Con.								
Farms on which spraying or dusting for disease and insects was practiced	75	1, 150					75	1, 150
Farms on which other improved practices were adopted	83	1, 991					83	1, 991
Different farms on which better practices were adopted	229	8, 803			1	1	230	8, 804
Tree fruits:								
Adult result demonstrations	1, 177	12, 965			2	15	1, 179	12, 980
Junior projects completed ²	112	921			14	92	126	1, 013
Farms on which improved stock or seed was planted	720	11, 262			2	3	722	11, 265
Farms on which better pruning methods were adopted	1, 175	18, 633			8	52	1, 183	18, 685
Farms on which spraying or other treatment for disease or insect pests was practiced	1, 215	25, 980			7	25	1, 222	26, 005
Farms on which other improved practices were adopted	578	16, 031			5	140	583	16, 171
Different farms on which better practices were adopted	1, 661	70, 586			12	180	1, 673	70, 766
Bush and small fruits:								
Adult result demonstrations	331	1, 758					331	1, 758
Junior projects completed ²	53	548			11	142	64	690
Farms on which improved stock or seed was planted	282	3, 578			2	6	284	3, 584
Farms on which better pruning methods were adopted	255	2, 272					255	2, 272
Farms on which spraying or other treatment for disease or insect pests was practiced	277	3, 220					277	3, 220
Farms on which other improved practices were adopted	157	2, 395					157	2, 395
Different farms on which better practices were adopted	623	11, 620			4	17	627	11, 637
Grapes:								
Adult result demonstrations	390	1, 721			1	12	391	1, 733
Junior projects completed ²	11	109			1	17	12	126
Farms on which improved stock or seed was planted	262	1, 845					262	1, 845
Farms on which better pruning methods were adopted	470	4, 161			1	10	471	4, 171
Farms on which spraying or other treatment for disease or insect pests was practiced	391	3, 699					391	3, 699
Farms on which other improved practices were adopted	160	1, 644			1	3	161	1, 647
Different farms on which better practices were adopted	741	10, 321			2	29	743	10, 350
Market gardening:								
Adult result demonstrations	421	5, 760					421	5, 760
Junior projects completed ²	130	1, 583			10	154	140	1, 737
Farms on which improved stock or seed was planted	275	8, 789			2	9	277	8, 798
Farms on which better pruning methods were adopted	67	710					67	710
Farms on which spraying or other treatment for disease or insect pests was practiced	325	7, 528			1	10	326	7, 538
Farms on which other improved practices were adopted	173	5, 307			1	8	174	5, 315
Different farms on which better practices were adopted	581	23, 266			3	19	584	23, 285
Home gardening:								
Adult result demonstrations	344	8, 101	468	45, 368	1	21	813	53, 490
Junior projects completed ²	293	8, 771	504	48, 228	104	9, 852	901	66, 851
Farms on which improved stock or seed was planted	210	9, 466			15	587	225	10, 053
Farms on which better pruning methods were adopted	39	532					39	532
Farms on which spraying or other treatment for disease or insect pests was practiced	375	13, 663	476	28, 820	20	720	871	43, 203

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Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Home gardening—Continued.								
Farms on which other improved practices were adopted.....	157	4, 512	-----	-----	7	183	164	4, 695
Different farms on which better practices were adopted.....	701	36, 812	655	109, 576	31	1, 608	1, 387	147, 996
Beautifying home grounds:								
Adult result demonstrations.....	437	4, 592	420	25, 505	4	139	861	30, 236
Junior projects completed ²	81	2, 214	371	38, 763	18	902	470	41, 879
Farms on which improved stock or seed was planted.....	244	3, 883	-----	-----	5	136	249	4, 019
Farms on which better pruning methods were adopted.....	116	1, 188	-----	-----	2	7	118	1, 195
Farms on which spraying or other treatment for disease or insect pests was practiced.....	161	2, 307	-----	-----	5	54	166	2, 361
Farms on which other improved practices were adopted.....	157	5, 265	-----	-----	4	403	161	5, 668
Different farms on which better practices were adopted.....	700	18, 449	636	71, 309	11	724	1, 347	90, 482
Forestry:								
Adult result demonstrations.....	548	4, 493	-----	-----	2	17	550	4, 510
Junior projects completed ²	62	1, 096	-----	-----	53	1, 623	115	2, 719
Forest or woodlot plantings made.....	301	5, 863	-----	-----	30	775	331	6, 638
Farms on which assistance was given in woodlot management.....	467	5, 178	-----	-----	15	298	482	5, 47
Farms on which windbreaks were planted.....	272	3, 698	-----	-----	2	17	274	3, 715
Farms on which attempts were made to control white-pine blister rust.....	38	1, 237	-----	-----	3	22	41	1, 259
Farms on which other improved practices were adopted.....	183	3, 667	-----	-----	6	84	189	3, 751
Different farms on which better practices were adopted.....	762	18, 471	-----	-----	24	431	786	18, 902
Rodents and other animal pests:								
Adult result demonstrations.....	398	13, 246	-----	-----	-----	-----	398	13, 246
Farms on which control meas- ures were adopted.....	768	132, 471	-----	-----	-----	-----	768	132, 471
Grasshoppers and other insect pests:								
Adult result demonstrations.....	312	6, 345	-----	-----	-----	-----	312	6, 345
Farms on which control measures were adopted.....	428	88, 4 5	-----	-----	-----	-----	428	88, 485
Dairy cattle:								
Adult result demonstrations.....	1, 058	18, 852	218	10, 953	1	8	1, 277	29, 815
Junior projects completed ²	1, 186	20, 322	192	3, 925	135	5, 221	1, 513	29, 468
Farms on which assistance was given in obtaining purebred sires.....	1, 802	18, 693	-----	-----	45	163	1, 847	18, 856
Farms on which assistance was given in obtaining high-grade or purebred females.....	1, 583	25, 598	-----	-----	60	588	1, 643	26, 185
Farms on which herds were culled.....	896	13, 162	-----	-----	8	26	904	13, 188
Bull associations organized dur- ing the year.....	296	972	-----	-----	1	3	297	975
Members in bull associations.....	285	9, 347	-----	-----	-----	-----	285	9, 347
Breed associations organized during the year.....	213	319	-----	-----	2	6	215	325
Members in breed associations.....	220	8, 108	-----	-----	2	90	222	8, 198
Dairy-herd improvement associa- tions organized or reorgan- ized during year.....	914	1, 314	-----	-----	6	6	920	1, 320
Members in dairy-herd improve- ment associations.....	930	28, 728	-----	-----	8	163	938	28, 891
Other farms on which cows were tested for production.....	819	25, 814	-----	-----	11	153	830	25, 967
Cows under test by such associa- tions and individual farms.....	1, 126	509, 819	-----	-----	11	3, 687	1, 137	513, 506
Farms on which improved prac- tices in the sanitary produc- tion and care of milk were adopted.....	1, 303	57, 516	328	20, 243	10	236	1, 641	77, 995

² Boys' and girls' club members.

TABLE 7.—*Statistical summary of results of cooperative extension work, 1928—Con.*

Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Dairy cattle—Continued.								
Farms on which better-balanced rations were fed.....	1,730	56,576	268	11,172	19	403	2,017	68,151
Farms on which insect pests were controlled.....	419	9,933			2	11	421	9,944
Farmers directly influenced to test animals for tuberculosis.....	975	260,470			8	180	983	260,650
Farmers directly influenced to vaccinate animals for blackleg.....	513	13,370			2	8	515	13,378
Farms on which other improved practices were adopted.....	520	23,666			5	137	525	23,803
Different farms on which better practices were adopted.....	2,174	428,609	375	31,782	73	1,497	2,622	461,888
Beef cattle:								
Adult result demonstrations.....	404	2,224			1	2	405	2,226
Junior projects completed ²	571	7,210			39	728	610	7,938
Farms on which assistance was given in obtaining purebred sires.....	807	5,339			2	2	809	5,341
Farms on which assistance was given in obtaining high-grade or purebred females.....	387	1,887			2	2	389	1,889
Farms on which herds were culled.....	138	1,303					138	1,303
Bull associations organized during the year.....	14	28					14	28
Members in bull associations.....	12	210					12	210
Breed associations organized during the year.....	12	12					12	12
Members in breed associations.....	11	264					11	264
Farms on which better-balanced rations were fed.....	463	5,099			2	12	465	5,111
Farms on which insect pests were controlled.....	153	1,720					153	1,720
Farmers directly influenced to test animals for tuberculosis.....	180	19,276					180	19,276
Farmers directly influenced to vaccinate for blackleg.....	408	8,949			1	8	409	8,957
Farms on which other improved practices were adopted.....	212	3,613			1	3	213	3,616
Different farms on which better practices were adopted.....	1,149	49,323			9	26	1,158	49,349
Swine:								
Adult result demonstrations.....	953	12,561					953	12,561
Junior projects completed ²	1,403	29,242			120	3,029	1,523	32,271
Farms on which assistance was given in obtaining purebred sires.....	1,349	12,396			20	74	1,369	12,470
Farms on which assistance was given in obtaining high-grade or purebred females.....	1,097	13,187			35	310	1,132	13,497
Farms on which herds were culled.....	235	2,184			4	47	239	2,231
Boar associations organized during the year.....	54	148			2	8	56	156
Members in boar associations.....	50	1,649			1	37	51	1,686
Breed associations organized during the year.....	25	46					25	46
Members in breed associations.....	39	1,146					39	1,146
Farms on which better-balanced rations were fed.....	1,003	23,106			11	163	1,014	23,269
Farms on which insect pests were controlled.....	573	14,648			2	16	575	14,664
Farmers directly influenced to test animals for tuberculosis.....	20	374					20	374
Farmers directly influenced to vaccinate for cholera.....	1,094	64,627			5	61	1,099	64,688
Farms on which other improved practices were adopted.....	546	23,331			2	5	548	23,336
Different farms on which better practices were adopted.....	1,925	139,721			40	657	1,965	140,378
Sheep:								
Adult result demonstrations.....	491	4,465			2	17	493	4,482
Junior projects completed ²	496	4,486			74	1,108	570	5,594

² Boys' and girls' club members.

TABLE 7.—*Statistical summary of results of cooperative extension work, 1928—Con.*

Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Sheep—Continued.								
Farms on which assistance was given in obtaining purebred sires.....	864	6, 753			13	55	877	6, 808
Farms on which assistance was given in obtaining high-grade or purebred females.....	614	4, 917			20	95	634	5, 012
Farms on which flocks were culled.....	277	2, 893			4	17	281	2, 910
Ram associations organized dur- ing the year.....	28	103					28	103
Members in ram associations.....	22	431					22	431
Breed associations organized during the year.....	35	37					35	37
Members in breed associations.....	32	1, 155					32	1, 155
Farms on which better-balanced rations were fed.....	481	6, 428			6	26	487	6, 454
Farms on which insect pests were controlled.....	444	6, 639			3	15	447	6, 654
Farms on which other improved practices were adopted.....	283	6, 014			1	2	284	6, 016
Different farms on which better practices were adopted.....	1, 168	28, 888			27	172	1, 195	29, 060
Poultry:								
Adult result demonstrations.....	1, 309	25, 208	382	30, 105	4	130	1, 695	55, 443
Junior projects completed ²	1, 058	27, 532	429	22, 622	138	6, 746	1, 625	56, 900
Farms on which assistance was given in obtaining purebred cockerels.....	1, 175	22, 684	388	7, 430	23	304	1, 586	30, 418
Farms on which assistance was given in obtaining high-grade or purebred females.....	945	21, 899			29	440	974	22, 339
Farms on which flocks were culled.....	1, 742	57, 636	483	18, 674	37	358	2, 262	76, 668
Breed associations organized during the year.....	114	144					114	144
Members in breed associations.....	114	4, 935					114	4, 935
Farms on which better-balanced rations were fed.....	1, 331	60, 195	445	20, 165	12	200	1, 788	80, 560
Farms on which insect pests were controlled.....	1, 123	39, 007	400	15, 373	8	152	1, 531	54, 532
Farmers directly influenced to test birds for tuberculosis.....	114	5, 574					114	5, 574
Farms on which other improved practices were adopted.....	608	29, 031			7	140	613	29, 171
Different farms on which better practices were adopted.....	2, 197	180, 351	572	78, 530	55	1, 767	2, 824	260, 648
Other livestock:								
Adult result demonstrations.....	55	336					55	336
Junior projects completed ²	108	1, 854			28	576	136	2, 430
Farms on which assistance was given in obtaining purebred sires.....	46	168			4	20	50	188
Farms on which assistance was given in obtaining high-grade or purebred females.....	37	231			4	23	41	254
Farms on which herds were culled.....	13	63			2	27	15	90
Associations organized during the year.....	12	15			1	1	13	16
Members in these associations.....	11	350			1	5	12	355
Breed associations organized during the year.....	7	9			1	1	8	10
Members in breed associations.....	8	354			1	15	9	369
Farms on which better-balanced rations were fed.....	39	755			3	34	42	789
Farms on which insect pests were controlled.....	22	347					22	347
Farms on which other improved practices were adopted.....	53	1, 875			3	38	56	1, 913
Different farms on which better practices were adopted.....	188	4, 441			11	326	199	4, 767

² Bays' and girls' club members.

TABLE 7.—*Statistical summary of results of cooperative extension work, 1928—Con.*

Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Agricultural engineering:								
Adult result demonstrations.....	976	20, 119	154	3, 909	2	124	1, 132	24, 152
Farms on which drainage sys- tems were installed.....	792	5, 504	-----	-----	1	2	793	5, 506
Farms on which irrigation sys- tems were installed.....	230	2, 142	-----	-----	1	5	231	2, 147
Farms on which terraces or soil dams were constructed.....	876	45, 055	-----	-----	2	3	878	45, 058
Dwellings constructed accord- ing to plans furnished.....	362	1, 671	154	894	-----	-----	516	2, 565
Dwellings remodeled according to plans furnished.....	344	1, 849	231	1, 976	-----	-----	575	3, 825
Sewage-disposal systems in- stalled according to plans fur- nished.....	687	3, 444	163	1, 406	2	53	852	4, 903
Water systems installed accord- ing to plans furnished.....	561	1, 887	220	1, 695	2	4	783	3, 586
Heating systems installed ac- cording to plans furnished.....	86	243	75	346	-----	-----	161	589
Lighting systems installed ac- cording to plans furnished.....	253	1, 768	166	1, 815	1	1	420	3, 584
Farms on which suggestions for maintenance and repair of machinery were followed.....	561	9, 363	-----	-----	1	26	562	9, 389
Farms on which better types of machinery were employed.....	1, 016	18, 615	-----	-----	1	2	1, 017	18, 617
Farms on which buildings other than dwellings were con- structed or remodeled accord- ing to plans furnished.....	1, 500	27, 487	-----	-----	4	87	1, 504	27, 574
Farms on which land was cleared.....	728	22, 260	-----	-----	3	27	731	22, 287
Farms on which other improved practices were adopted.....	297	9, 406	-----	-----	-----	-----	297	9, 406
Different farms on which better practices were adopted.....	2, 077	130, 564	360	9, 690	7	206	2, 444	140, 460
Farm management:								
Farms on which farm accounts were kept.....	1, 144	23, 884	-----	-----	1	2	1, 145	23, 886
Farms on which recommended changes in business were made.....	694	8, 930	-----	-----	1	2	695	8, 932
Other farms on which cropping, livestock, or complete farming systems were adopted accord- ing to recommendations.....	730	24, 416	-----	-----	1	2	731	24, 418
Junior projects completed ²	89	8, 316	-----	-----	6	45	95	8, 361
Farmers advised relative to leases.....	977	9, 327	-----	-----	2	4	979	9, 331
Farmers assisted in keeping cost- of-production records.....	796	17, 529	-----	-----	1	12	797	17, 541
Farms on which other improved practices were adopted.....	424	10, 975	-----	-----	2	19	426	10, 994
Different farms on which better practices were adopted.....	1, 484	73, 778	-----	-----	5	37	1, 489	73, 815
Credit:								
Membership in farm-loan or other credit associations organ- ized during year.....	73	3, 645	-----	-----	-----	-----	73	3, 645
Other farmers assisted in obtain- ing credit.....	445	6, 897	-----	-----	-----	-----	445	6, 897
Marketing:								
Cooperative marketing associa- tions organized during year.....	555	803	111	138	1	1	667	942
Members in these associations.....	523	68, 162	115	15, 371	1	135	639	83, 668
Total value of purchases.....	283	2, 987, 328	32	52, 012	1	2, 400	316	3, 041, 740
Savings in connection with such purchases.....	250	343, 881	25	9, 209	1	480	276	353, 570
Total value of sales.....	360	16, 025, 917	116	554, 101	1	175, 000	477	16, 755, 018
Profits in connection with such sales.....	295	1, 160, 671	85	195, 345	1	3, 200	381	1, 359, 216
Cooperative marketing associa- tions previously organized.....	1, 027	2, 136	114	130	3	3	1, 144	2, 269
Members in these associations.....	948	386, 437	113	28, 994	3	163	1, 064	415, 594
Total value of purchases.....	655	42, 381, 959	20	24, 665	1	269	676	42, 406, 893

² Boys' and girls' club members.

TABLE 7.—*Statistical summary of results of cooperative extension work, 1928—Con.*

Project or line of work	Reported by county agricul- tural agents		Reported by home demonstra- tion agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Marketing—Continued.								
Savings in connection with such purchases.....	590	3, 238, 406	13	8, 477	1	87	604	3, 246, 970
Total value of sales.....	715	169, 621, 352	116	1, 376, 652	1	740	832	170, 998, 744
Profits in connection with such sales.....	571	9, 318, 098	68	333, 422	1	74	640	9, 651, 594
Different farms on which im- proved marketing practices were adopted.....	1, 304	409, 361	334	43, 226	4	298	1, 642	452, 885
Food preparation:								
Adult result demonstrations.....	39	3, 339	530	67, 397	2	319	571	71, 055
Junior projects completed ¹	309	8, 931	772	76, 399	112	10, 372	1, 193	95, 702
Women adopting improved practices in bread making.....	37	2, 064	636	51, 712	3	282	676	54, 058
Women adopting improved practices in meat cookery.....	58	3, 173	620	55, 845	1	90	679	59, 108
Women adopting improved practices in vegetable cookery.....	76	6, 920	762	89, 142	3	360	841	96, 422
Women adopting improved practices in preparation of dairy-product dishes.....	60	3, 511	656	64, 052	3	91	719	67, 654
Women adopting improved practices in meal preparation.....	77	6, 102	751	87, 018	4	101	832	93, 221
Homes in which the family food supply was budgeted.....	44	2, 486	381	17, 536	9	103	434	20, 125
Different homes in which better practices were adopted.....	285	22, 599	940	231, 461	57	6, 163	1, 282	260, 223
Food preservation:								
Adult result demonstrations.....	13	399	485	56, 809	3	234	501	57, 442
Junior projects completed ²	265	5, 254	726	61, 987	102	4, 115	1, 093	71, 356
Women adopting improved practices in preserving fruits and vegetables.....	66	3, 079	790	89, 298	5	278	861	92, 655
Women adopting improved practices in preserving meats and fish.....	54	1, 292	582	32, 283	4	90	640	33, 665
Homes in which better food storage was provided.....	74	1, 756	505	18, 289	19	568	598	20, 613
Different homes in which better practices were adopted.....	195	8, 862	839	133, 139	44	2, 293	1, 078	144, 294
Quarts of food products canned.....	202	647, 677	749	19, 323, 519	80	206, 714	1, 031	20, 177, 910
Pounds of fruits and vegetables dried.....	24	32, 303	543	1, 065, 538	2	277	569	1, 098, 118
Pounds of meats cured.....	31	116, 311	496	16, 244, 405	1	5, 528	528	16, 366, 244
Nutrition:								
Adult result demonstrations.....	43	3, 854	441	43, 053	3	120	487	47, 027
Junior projects completed ²	52	3, 978	472	57, 569	17	1, 243	541	62, 790
Women balancing family meals according to approved meth- ods.....	112	17, 306	589	55, 737	3	298	704	73, 341
Women preparing better school lunches.....	61	4, 329	527	36, 335	2	105	590	40, 769
Schools in which serving of a hot dish or school lunch was introduced.....	79	666	429	1, 774	22	318	530	2, 758
Homes in which improved prac- tices in child feeding were car- ried out.....	95	7, 227	541	27, 245	6	608	642	35, 080
Different homes in which better practices were adopted.....	188	33, 335	806	176, 003	25	2, 653	1, 019	211, 991
Clothing:								
Adult result demonstrations.....	63	6, 809	482	67, 372	5	463	550	74, 644
Junior projects completed ²	603	41, 394	848	96, 269	129	24, 628	1, 580	162, 291
Women adopting improved practices in selection and con- struction.....	183	27, 113	784	105, 080	6	1, 186	973	133, 379
Women adopting improved practices in renovation and remodeling.....	129	15, 696	660	64, 773	5	437	794	80, 906
Women adopting improved practices in millinery.....	73	6, 184	530	41, 952	5	101	608	48, 237
Women adopting improved practices in costume designing.....	101	10, 192	553	49, 279	8	479	662	59, 950

¹ Boys' and girls' club members.

TABLE 7.—*Statistical summary of results of cooperative extension work, 1928—Con.*

Project or line of work	Reported by county agricul- tural agents		Reported by home demon- stration agents		Reported by club agents		Total of all lines of work	
	Agents report- ing	Number	Agents report- ing	Number	Agents report- ing	Num- ber	Agents report- ing	Number
Clothing—Continued.								
Women adopting improved practices in infant wardrobe planning.....	45	3, 287	378	11, 395	2	60	425	14, 742
Women adopting improved practices in children's ward- robe planning.....	65	6, 514	455	28, 394	3	196	523	35, 104
Women adopting improved practices in adult wardrobe planning.....	72	9, 287	544	54, 867	7	620	623	64, 774
Different homes in which better practices were adopted.....	431	70, 484	961	240, 100	63	9, 618	1, 465	320, 202
Dress forms made.....	78	1, 791	279	7, 103	1	7	358	8, 901
Dresses and coats made.....	362	60, 082	762	639, 904	93	17, 301	1, 217	717, 287
Undergarments made.....	367	55, 967	773	814, 080	95	21, 892	1, 235	891, 939
Hats made.....	76	4, 936	574	113, 427	57	2, 658	707	121, 021
Home management:								
Adult result demonstrations.....	36	2, 488	422	31, 162	2	291	460	33, 941
Junior projects completed ²	17	400	259	15, 703	11	206	287	16, 309
Women following a systematized plan of household work.....	91	8, 309	372	13, 565	4	880	467	22, 754
Homes into which additional labor-saving equipment was introduced.....	110	8, 626	700	38, 258	6	618	816	47, 502
Kitchens planned and rear- ranged for convenience.....	92	3, 706	662	20, 987	7	301	761	24, 994
Women following improved laundry practices.....	40	1, 166	371	12, 979	3	99	414	14, 244
Women making budgets and keeping accounts.....	29	888	335	7, 751	2	50	366	8, 689
Different homes in which better practices were adopted.....	147	20, 782	771	77, 082	11	1, 292	929	99, 156
House furnishings:								
Adult result demonstrations.....	29	1, 447	477	33, 530	1	75	507	35, 052
Junior projects completed ²	130	4, 448	533	30, 964	50	862	713	36, 274
Women adopting improved practices in selection and arrangement.....	97	21, 525	704	57, 543	3	236	804	79, 304
Women adopting improved practices in repairing and remodeling.....	80	7, 057	698	43, 159	2	97	780	50, 313
Women adopting improved practices in wall, woodwork, and floor treatment.....	92	9, 604	710	38, 332	4	81	806	48, 017
Different homes in which better practices were adopted.....	197	30, 708	834	109, 427	32	899	1, 063	141, 034
Home health and sanitation:								
Adult result demonstrations.....	6	343	257	24, 984	1	60	264	25, 387
Junior projects completed ²	62	2, 939	409	53, 145	16	3, 258	487	59, 342
Homes in which recommended health practices were adopted.....	91	8, 285	498	83, 967	22	1, 967	611	94, 219
Homes in which sanitary closets or outhouses were installed.....	31	180	288	14, 907	-----	-----	319	15, 087
Homes screened.....	28	197	403	11, 000	1	150	432	11, 347
Homes in which other methods of controlling flies, mosquitoes, and other insects were fol- lowed.....	35	767	343	22, 702	1	200	379	23, 669
Different homes in which better practices were adopted.....	75	4, 791	527	77, 991	17	2, 686	619	85, 468
Beekeeping:								
Adult result demonstrations.....	198	1, 498	-----	-----	1	16	199	1, 514
Junior projects completed ²	106	589	1	5	18	95	125	689
Different farms on which better practices were adopted.....	280	5, 953	2	6	8	35	290	5, 994
Handicraft:								
Adult result demonstrations.....	15	265	5	544	1	19	21	828
Junior projects completed ²	64	2, 772	3	289	36	2, 653	103	5, 714
Different farms on which better practices were adopted.....	40	1, 657	9	1, 033	5	399	54	3, 089
Miscellaneous agr.culture:								
Adult result demonstrations.....	65	1, 036	2	19	-----	-----	67	1, 055
Junior projects completed ²	96	2, 728	6	665	33	1, 812	135	5, 205
Different farms on which better practices were adopted.....	83	7, 159	3	201	9	22	95	7, 682

Boys' and girls' club members.

TABLE 7.—Statistical summary of results of cooperative extension work, 1928—Con.

Project or line of work	Reported by county agricultural agents		Reported by home demonstration agents		Reported by club agents		Total of all lines of work	
	Agents reporting	Number	Agents reporting	Number	Agents reporting	Number	Agents reporting	Number
Miscellaneous home economics:								
Adult result demonstrations	6	579	198	31,297	1	20	205	31,896
Junior projects completed ²	13	896	233	37,990	13	651	259	39,537
Different homes in which better practices were adopted	53	4,767	368	87,452	2	99	423	92,318
Total:								
Adult result demonstrations		376,647		472,007		2,870		851,524
Junior projects completed ²		251,693		544,523		86,579		882,795
Different farms or homes where better practices were adopted		3,059,610		1,561,975		40,512		4,662,097

² Boys' and girls' club members.

TABLE 8.—Farmers' institutes conducted by the extension divisions of the colleges of agriculture, year ended June 30, 1928

State	Institutes	Days conducted	Sessions	Attendance	Persons who gave lectures—					State appropriation used	Other funds used
					From extension staff	From experiment station staff	From State department of agriculture staff	From special force employed for institutes	Total lecturers		
	No.	No.	No.	No.	No.	No.	No.	No.	No.	Dollars	Dollars
Georgia	36	36	108	20,545	14				14	1,000.00	2,000.00
Indiana	456	524	1,176	177,912	7	6		40	53	13,462.81	19,650.70
Kansas	10	19	32	5,381	11	5		1	17	326.70	
Nebraska	11	18	46	7,923	6			1	7		
New York	75	75	116	4,121	9			8	17	3,716.37	
Ohio	804	1,479	3,748	716,818	1	2		86	89	17,026.40	16,185.82
South Dakota	79	137	218	27,829	12	3		4	19	6,309.79	
Tennessee	3	7	14	6,300	5	4	2	8	19	1,700.00	
Wisconsin	480	653	1,368	122,405	29	6	3	32	70	30,000.00	
Wyoming	18	23	46	6,202	23	8	3		34		
Total:											
1928	1,972	2,971	6,872	1,095,436	117	34	8	180	339	73,542.07	37,836.52
1927	1,985	2,880	6,603	962,211	104	12	8	184	308	59,645.74	28,452.53
1926	2,130	2,934	6,556	969,864	93	15	3	215	326	63,022.83	25,139.60
1925	1,860	2,837	6,508	1,011,399	181	32	12	218	443	63,680.27	28,448.75
1924	2,201	3,479	7,578	1,062,709	405	45	33	223	706	68,125.75	30,741.28

TABLE 9.—*Farmers' institutes conducted by the State departments of agriculture, year ended June 30, 1928*

State	Institutes	Days conducted	Sessions	Attendance	Persons who gave lectures—					State appropriation used	Other funds used
					From extension staff	From experiment station staff	From State department of agriculture staff	From special force employed for institutes	Total lecturers		
	No.	No.	No.	No.	No.	No.	No.	No.	No.	Dollars	Dollars
Illinois.....	198	319	1,276	123,831	-----	40	8	118	166	32,670.00	6,715.10
Iowa.....	78	233	528	109,220	119	-----	-----	120	239	4,323.96	17,714.49
Maine.....	297	297	350	25,356	-----	-----	12	3	15	3,000.00	-----
Total:											
1928.....	573	849	2,154	258,407	119	40	20	241	420	39,993.96	24,429.59
1927.....	275	545	1,415	201,034	3	37	5	129	1454	68,032.53	14,000.00
1926.....	119	1,061	2,256	192,756	-----	37	12	172	1464	70,021.46	31,452.96
1925.....	890	1,451	2,434	409,693	13	34	30	204	1431	23,182.58	31,308.06
1924.....	1,313	1,642	2,809	412,257	215	56	62	178	511	22,341.01	-----

¹ Includes lecturers from other sources than those mentioned.

TABLE 10.—*Expenditures from the United States appropriation of May 8, 1914 (Federal Smith-Lever) for cooperative agricultural extension work in each State for the year ended June 30, 1928, by items of expense, and totals for 1915-1927*

State	Total appropriation	Personal services—salaries and labor	Printing, binding, and cuts for publication	Supplies and materials	Communication service ¹	Transportation of things ¹	Heat, light, water, and power	Equipment	Travel expenses	Miscellaneous	Unexpended balance
Alabama	\$203,201.83	\$176,120.51		\$6,448.93	\$3,134.94	\$269.90	\$76.30	\$2,760.61	\$13,839.47	\$551.17	---
Arizona	32,761.23	29,464.36	\$74.55	94.44	103.29	22.42	---	2.50	2,999.37	---	---
Arkansas	163,576.10	91,472.45	1,227.92	1,476.40	675.13	195.62	---	1,922.73	65,397.25	1,208.60	---
California	125,061.46	100,213.03		3,634.34	190.77	133.09	---	160.19	19,706.12	723.92	---
Colorado	61,101.07	45,258.80	2,201.16	3,014.81	1,132.00	186.65	---	381.74	8,894.18	31.73	---
Connecticut	56,680.09	56,680.09									---
Delaware	20,741.56	11,098.13	512.53	1,073.19	731.60	23.58	---	273.60	7,028.93	---	---
Florida	74,368.33	52,564.48	3,235.86	3,113.60	377.27	49.06	---	1,215.75	13,806.31	6.00	---
Georgia	237,780.76	187,298.17	4,812.36	7,998.71	3,238.27	74.14	1,923.36	4,924.19	26,193.07	1,318.49	---
Idaho	42,867.74	32,961.80	4,418.25	626.41	1,147.56	5.53	---	---	8,708.19	---	---
Illinois	228,495.98	192,369.82	3,845.17	6,104.47	1,586.63	102.63	---	1,961.53	22,358.56	167.17	---
Indiana	162,087.09	133,010.12	1,852.80	3,923.96	2,205.00	1.27	---	465.69	20,512.96	115.29	---
Iowa	170,596.43	167,019.80					---	---	3,576.63	---	---
Kansas	130,962.06	119,096.36	967.75	732.75	3.05	---	---	1,352.02	8,810.13	---	---
Kentucky	197,342.23	87,114.06	567.40	1,562.51	1,505.51	625.86	3,600.00	381.93	101,696.71	288.32	---
Louisiana	132,963.83	132,963.83					---	---	---	---	---
Maine	59,217.76	43,458.50	1,258.02	939.15	456.88	14.50	---	551.41	12,539.30	---	---
Maryland	70,963.51	62,893.97	7.85	71.34	332.29	1.22	---	---	7,644.34	12.50	---
Massachusetts	31,234.75	30,624.67	164.05		.72	---	---	---	445.31	---	---
Michigan	159,913.95	159,913.95					---	---	---	---	---
Minnesota	150,319.33	129,306.20		30.20	192.44	4.33	---	---	20,781.66	4.50	---
Mississippi	172,904.83	145,413.56	1,901.89	1,183.29	761.84	95.22	352.80	315.84	22,082.19	798.50	---
Missouri	200,921.32	149,976.71	2,304.29	3,381.05	878.02	66.96	---	222.56	43,966.50	125.23	---
Montana	49,597.13	48,155.78	994.79		20.17	---	---	---	426.39	---	---
Nebraska	103,620.98	103,620.98					---	---	---	---	---
Nevada	16,530.11	14,025.00	149.75	521.42	264.63	58.12	---	212.29	1,281.30	17.60	---
New Hampshire	27,159.69	25,096.12	613.98			300.57	700.00	---	449.02	---	---
New Jersey	80,773.81	17,829.06	574.58	6,844.72	807.59	72.42	130.88	1,392.31	22,390.86	731.39	---
New Mexico	41,035.53	29,313.06	1,311.61	1,327.59	215.86	84.97	---	688.24	8,070.48	23.72	---
New York	198,634.11	159,657.95	4,678.92	3,732.36	1,733.97	17.45	---	1,665.03	25,704.41	239.63	\$1,204.39
North Carolina	227,356.06	183,223.62		3,912.89	453.02	19.12	9.00	1,197.74	41,833.15	707.52	---
North Dakota	68,694.01	48,942.66	1,551.27	2,588.42	246.01	81.41	---	477.88	14,475.19	61.17	---
Ohio	228,775.06	174,487.74	13,398.22	7,741.28	1,815.60	285.38	---	2,405.29	28,493.17	148.38	---
Oklahoma	166,422.88	122,305.32	7,449.95	3,701.96	1,382.52	8.25	---	693.55	30,855.23	25.50	.60
Oregon	51,224.89	28,718.04	877.67	3,570.88	551.73	120.15	---	1,662.21	15,697.81	26.40	---
Pennsylvania	336,987.38	291,881.78		3,247.26	2,083.42	110.96	1,424.00	81.32	2,469.56	510.51	---
Rhode Island	11,598.82	7,860.33	81.50	737.79			---	403.52	35,785.09	1,452.05	---
South Carolina	156,014.49	102,303.61	4,755.17	6,201.95	3,726.83	181.68	614.00	994.11	762.82	---	---
South Dakota	66,176.30	65,413.38					---	---	29,974.27	1,638.98	---
Tennessee	191,413.63	147,527.80	3,006.06	5,370.49	2,372.83	577.57	46.43	893.20	78,687.70	---	---
Texas	341,015.26	245,862.66	5,040.10	6,725.81	3,803.68	174.83	---	663.45	---	57.03	---

Utah.....	34,565.68	32,473.11	450.00	184.31	110.84	184.86	9,629.45	31,777.20	841,785.79	11,584.14	1,204.99
Vermont.....	35,473.53	25,556.98	53.25	1,316.74	609.24	573.73	10,420.66	37,492.64	854,264.87	11,291.73	1,563.26
Virginia.....	181,804.66	161,356.56	2,261.53	5,295.54	1,773.87	255.99	11,071.82	39,043.21	927,124.07	10,935.48	816.90
Washington.....	73,868.29	55,942.88	1,277.77	3,846.83	1,273.91	687.53	6,483.13	40,018.71	918,174.14	11,845.01	916.10
West Virginia.....	125,015.45	116,480.74	5,484.30	3,485.29	1,273.91	2.98	8,945.15	38,726.37	983,709.00	5,479.55	20,394.99
Wisconsin.....	155,779.27	150,251.46		534.71	5.46		9,009.22	47,247.12	1,019,854.81	6,944.88	59,183.11
Wyoming.....	24,399.74	23,274.17					7,914.66	40,701.62	935,937.26	7,174.06	69,650.55
Total:											
1928.....	5,880,000.00	4,747,854.16	79,362.27	110,867.79	40,951.79	4,982.42	9,629.45	31,777.20	841,785.79	11,584.14	1,204.99
1927.....	5,880,000.00	4,708,815.40	81,653.50	118,545.59	49,676.60	6,275.75	10,420.66	37,492.64	854,264.87	11,291.73	1,563.26
1926.....	5,880,000.00	4,618,837.33	99,177.47	125,510.84	41,196.91	6,285.97	11,071.82	39,043.21	927,124.07	10,935.48	816.90
1925.....	5,879,999.99	4,660,134.68	91,840.89	109,079.77	35,844.59	5,662.97	6,483.13	40,018.71	918,174.14	11,845.01	916.10
1924.....	5,880,000.00	4,583,765.05	86,152.30	106,380.09	40,964.27	5,483.23	8,945.15	38,726.37	983,709.00	5,479.55	20,394.99
1923.....	5,880,000.00	4,447,492.44	113,901.41	130,029.94	40,240.02	16,097.05	9,009.22	47,247.12	1,019,854.81	6,944.88	59,183.11
1922.....	5,580,000.00	4,265,041.66	107,237.37	106,177.73	40,165.09		7,914.66	40,701.62	935,937.26	7,174.06	69,650.55
1921.....	5,580,000.00	3,727,417.45	96,897.63	115,770.50	47,829.09		6,269.91	50,585.69	920,621.97	8,656.26	105,951.50
1920.....	4,580,000.00	3,210,273.50	113,311.71	127,097.40	42,254.14		4,614.66	48,695.97	911,947.11	6,149.87	115,655.64
1919.....	2,580,000.00	1,660,720.95	105,120.93	134,166.83	43,054.00		2,618.28	91,655.52	496,439.74	5,051.79	41,171.96
1918.....	2,580,000.00	1,381,547.05	76,910.28	109,656.02	39,627.12		2,412.57	61,433.27	394,481.91	1,998.07	11,933.71
1917.....	1,580,000.00	1,140,061.93	43,927.84	52,587.62	20,041.81		1,338.98	36,881.97	278,867.24	1,346.99	4,945.62
1916.....	1,080,000.00	755,165.64	27,867.77	40,863.34	12,154.06		968.63	39,404.50	201,084.45	415.34	2,076.27
1915.....	480,000.00	329,143.14	8,241.16	15,463.39	5,539.85		146.85	19,769.52	96,402.41	228.41	5,065.27

1 Prior to 1923, transportation of things included in communication service.

Utah-----	24,565.68	23,799.37	-----	350.73	72.21	7.28	-----	2.50	333.59	-----	60.90	-----
Vermont-----	25,473.53	21,567.99	-----	471.65	29.45	12.91	-----	1,269.10	1,701.53	-----	-----	-----
Virginia-----	171,804.66	112,106.18	-----	232.50	731.91	-----	-----	-----	48,161.21	-----	-----	-----
Washington-----	63,868.29	44,159.22	-----	2,718.66	861.56	340.59	-----	1,315.36	13,010.59	-----	24.66	-----
West Virginia-----	115,015.45	112,610.80	-----	708.40	3.10	-----	-----	-----	693.49	-----	-----	-----
Wisconsin-----	145,779.27	96,809.35	-----	2,530.01	4,771.82	121.22	-----	1,486.58	35,822.16	-----	97.60	-----
Wyoming-----	14,399.74	13,982.60	-----	376.24	-----	-----	-----	-----	34.40	-----	6.50	-----
Total:-----	5,400,000.00	4,709,385.48	-----	42,744.30	26,028.16	2,331.92	5,237.79	18,891.78	545,679.20	8,034.92	1,204.99	-----
1928-----	5,400,000.00	4,700,633.63	-----	44,348.94	26,237.92	2,412.33	4,628.74	13,385.53	540,365.54	8,089.82	1,563.26	-----
1927-----	5,400,000.00	4,711,692.12	-----	47,014.19	30,780.71	4,717.07	5,051.17	10,992.57	538,576.17	7,465.67	816.90	-----
1926-----	5,399,999.99	4,664,630.42	-----	51,852.67	25,662.11	2,755.91	4,724.92	12,666.14	584,930.38	7,413.94	916.10	-----
1925-----	5,400,000.00	4,637,018.08	-----	46,053.65	29,212.57	4,409.56	6,075.61	17,207.77	568,349.42	11,220.40	20,394.99	-----
1924-----	5,400,000.00	4,655,864.27	-----	49,671.43	25,956.13	14,257.77	4,827.45	22,819.11	520,258.46	5,272.14	59,183.11	-----
1923-----	5,100,000.00	4,254,787.62	-----	49,834.16	27,459.91	-----	5,105.09	24,684.34	587,035.78	7,187.79	69,650.55	-----
1922-----	4,600,000.00	3,850,788.52	-----	40,298.04	16,461.40	-----	3,104.69	21,019.47	484,159.39	1,393.41	105,951.50	-----
1921-----	4,100,000.00	3,382,628.44	-----	46,471.18	26,754.12	-----	3,357.21	18,452.15	440,221.83	7,503.05	115,655.64	-----
1920-----	2,100,000.00	1,484,785.07	-----	77,990.43	28,237.75	-----	2,824.06	33,157.82	369,769.41	6,522.71	41,171.96	-----
1919-----	1,600,000.00	1,189,520.31	-----	46,437.58	20,826.08	-----	3,052.65	24,613.74	259,998.19	3,486.85	11,933.71	-----
1918-----	1,100,000.00	825,004.97	-----	32,507.55	12,441.66	-----	232.44	17,015.59	171,145.06	1,884.86	4,945.62	-----
1917-----	600,000.00	455,471.00	-----	21,505.74	5,397.94	-----	223.28	11,758.17	87,038.02	1,331.24	2,076.27	-----
1916-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1 Prior to 1923, transportation of things included in communication service.

TABLE 12.—Expenditures from the United States appropriation of May 8, 1914 (Federal Smith-Lever) for cooperative agricultural extension work in each State for the year ended June 30, 1928, by projects, and totals for 1915-1927

States	Totals	Administra- tion	Printing and distribution of publica- tions	County agents	Home demon- stration 1	Boys' and girls' club work	Home eco- nomics specialists 2 3	Extension schools
Alabama.....	\$203,201.83	\$10,508.24	---	\$105,814.81	\$36,849.07	\$7,254.45	\$483.33	\$4,401.07
Arizona.....	32,761.23	9,206.06	\$74.85	11,451.05	5,880.03	4,302.53	---	---
Arkansas.....	163,576.10	7,730.19	6,243.90	74,353.13	46,261.84	6,477.55	4,681.85	---
California.....	125,061.46	6,187.76	---	55,330.83	53,420.00	7,646.69	---	---
Colorado.....	61,101.07	5,735.86	2,569.89	20,734.26	2,427.36	9,930.80	2,600.00	---
Connecticut.....	56,680.09	5,327.00	---	4,761.67	6,550.01	8,320.46	---	---
Delaware.....	20,741.56	3,022.68	512.53	6,501.85	2,071.44	8,320.46	---	---
Florida.....	74,368.33	8,603.31	3,442.41	35,844.37	2,833.75	6,764.41	---	65.74
Georgia.....	237,780.76	9,707.01	4,812.36	109,178.33	53,398.82	8,607.60	---	---
Idaho.....	42,867.74	3,161.71	4,418.25	17,232.60	8,717.37	380.00	---	---
Illinois.....	228,495.98	19,062.44	4,703.27	83,126.22	41,762.25	14,500.05	---	---
Indiana.....	162,087.09	13,506.46	1,832.80	44,541.79	8,455.63	17,390.62	---	3,686.28
Iowa.....	170,596.43	7,350.00	---	75,100.43	13,400.00	16,221.00	---	---
Kansas.....	130,962.06	13,145.19	1,294.41	77,109.51	27,169.60	11,633.98	43.60	230.63
Kentucky.....	197,342.23	6,779.58	2,384.88	115,890.39	18,150.10	12,087.36	---	2,822.78
Louisiana.....	132,963.83	5,115.06	---	82,169.20	39,254.25	5,317.46	---	---
Maine.....	59,217.76	4,932.18	1,258.02	25,879.10	26,148.46	---	---	---
Massachusetts.....	70,963.51	4,732.44	531.57	35,181.80	17,367.06	1,375.11	---	---
Michigan.....	31,234.75	882.43	694.55	5,577.28	1,500.00	5,866.58	---	---
Minnesota.....	150,319.33	13,105.66	---	86,941.86	20,175.00	34,522.13	---	---
Mississippi.....	172,904.83	17,217.00	---	53,875.02	5,719.40	21,725.47	---	---
Missouri.....	200,921.32	5,458.90	1,901.59	68,039.66	31,654.84	17,069.24	---	---
Montana.....	49,597.13	4,305.91	3,203.03	98,355.43	18,602.73	16,893.70	2,336.67	22.00
Nebraska.....	103,620.98	6,590.00	782.76	27,981.00	9,500.94	1,550.00	---	---
Nevada.....	16,530.11	8,708.30	340.00	45,440.00	2,680.00	5,895.00	---	---
New Hampshire.....	27,159.69	6,590.00	149.75	5,372.06	2,300.00	2,002.98	---	---
New Jersey.....	80,773.81	7,283.60	614.55	7,083.44	7,422.81	5,031.55	---	---
New Mexico.....	41,035.53	12,855.26	2,615.52	18,834.65	11,501.48	---	---	---
New York.....	198,634.11	6,867.14	4,855.59	15,850.21	34,475.66	21,529.79	11,967.11	1,794.72
North Carolina.....	227,356.06	3,951.41	2,371.23	44,295.23	78,590.98	---	---	---
North Dakota.....	68,694.01	8,376.89	1,971.27	144,813.67	2,012.73	3,930.98	---	---
Ohio.....	228,775.06	27,102.53	6,496.19	74,635.29	21,498.85	12,433.96	4,125.76	---
Oklahoma.....	166,422.88	7,013.59	7,449.95	69,870.67	66,954.76	3,036.92	---	---
Oregon.....	51,224.89	9,163.76	1,536.68	8,811.27	2,690.60	12,339.21	---	---
Pennsylvania.....	336,987.38	46,477.74	---	231,314.04	10,277.44	---	2,898.77	---
Rhode Island.....	11,598.82	1,945.45	81.50	1,454.47	2,399.11	3,442.18	---	---
South Carolina.....	156,014.49	10,025.05	2,834.56	42,838.93	26,532.49	7,903.95	---	---
South Dakota.....	66,176.30	3,800.00	---	19,956.36	16,635.10	4,350.19	---	---
Tennessee.....	191,413.63	12,527.56	3,006.06	115,251.47	44,190.64	3,666.33	---	250.28
Texas.....	341,015.26	28,554.14	5,197.70	165,252.21	95,212.67	2,769.57	---	---

Utah.....	34,565.68	2,476.93	-----	16,462.67	4,147.85	1,665.40	-----
Vermont.....	35,473.53	5,652.26	-----	9,944.35	5,927.23	7,742.49	-----
Virginia.....	181,804.66	21,337.36	-----	110,228.19	41,728.95	8,115.45	-----
Washington.....	73,868.29	17,759.22	-----	24,356.33	8,436.52	5,581.66	-----
West Virginia.....	125,015.45	8,680.50	-----	62,674.26	23,752.50	15,609.57	-----
Wisconsin.....	155,779.27	11,238.51	-----	55,531.58	5,565.01	8,410.00	-----
Wyoming.....	24,399.74	7,279.82	-----	12,194.92	4,200.00	725.00	-----
Total:							
1928.....	5,880,000.00	467,466.38	91,233.78	2,652,167.00	1,021,850.25	372,020.37	13,273.50
1927.....	5,880,000.00	474,287.82	112,201.26	2,561,832.81	1,007,869.10	364,487.44	28,871.39
1926.....	5,880,000.00	514,714.28	143,188.39	2,565,351.10	964,378.07	358,598.55	33,037.96
1925.....	5,879,999.99	489,334.58	129,589.83	2,545,660.14	923,732.64	395,996.33	25,285.69
1924.....	5,880,000.00	567,299.02	107,430.35	2,499,648.20	885,351.85	347,032.94	25,595.61
1923.....	5,880,000.00	560,818.85	134,982.11	2,484,671.37	885,893.81	388,141.33	27,557.00
1922.....	5,580,000.00	534,939.13	107,237.37	2,585,672.90	690,124.03	367,674.18	24,013.74
1921.....	5,080,000.00	510,671.70	96,897.63	2,314,067.79	643,712.65	338,121.77	29,275.33
1920.....	4,580,000.00	497,185.75	113,328.01	1,980,498.67	643,380.58	319,561.57	35,041.37
1919.....	2,580,000.00	497,041.99	105,120.98	655,145.98	395,631.98	143,219.87	46,439.03
1918.....	2,080,000.00	390,545.48	76,910.28	584,815.72	356,475.39	112,076.34	44,515.12
1917.....	1,580,000.00	249,738.80	43,881.48	453,417.17	261,229.14	105,290.22	69,425.12
1916.....	1,080,000.00	177,213.30	27,867.77	289,708.77	174,753.22	63,189.11	63,125.80
1915.....	480,000.00	86,278.39	8,241.16	128,083.33	69,890.05	32,944.29	33,821.65

¹ Prior to 1920 included home-economics specialists.

² Prior to 1920 included under home demonstration work.

³ Prior to 1925 included foods and nutrition, home management, and clothing.

TABLE 12.—Expenditures from the United States appropriation of May 8, 1914 (Federal Smith-Lever) for cooperative agricultural extension work in each State for the year ended June 30, 1928, by projects, and totals for 1915-1927—Continued

States	Animal husbandry	Poultry	Dairying	Animal diseases	Agronomy	Foods and nutrition 4	Home management 4	Clothing 4
Alabama	\$12,152.64	\$660.38	\$715.26		\$2,420.77	\$250.00		\$250.00
Arizona	2,352.83	2,234.06	2,471.69		2,507.61			2,365.41
Arkansas	2,482.81	2,963.31			4,294.75	2,806.70		3,362.81
Colorado	2,803.71	4,200.00	4,072.00		3,858.00			2,600.00
Connecticut	4,795.95	4,757.97						
Florida	5,962.06	9,137.13	286.97	\$356.44	15,635.48	\$2,488.60		1,499.17
Georgia	4,574.00		2,185.00		1,982.35			1,636.46
Idaho	5,660.84	3,611.89	7,380.35	2,252.79	9,604.54	3,525.63	5,212.67	3,401.74
Illinois	12,024.73	8,245.78	9,400.00		9,085.50	5,676.49		5,257.18
Indiana	5,500.00					9,900.00	13,750.00	11,000.00
Iowa						13.40	36.77	64.08
Kansas	3,512.05	4,328.24	5,475.33	4,247.76	3,187.94	2,332.02		2,813.86
Kentucky	24.53							233.33
Louisiana		1,277.40	1,677.82	920.89	1,397.63			
Maryland		2,400.00			1,800.00			
Massachusetts	1,879.50					1,500.00	900.00	1,500.00
Michigan	3,960.00					2,799.96	5,560.00	5,955.00
Minnesota	9,857.70	4,673.01	15,968.97	3,360.00	1,650.00	3,476.22	2,718.31	6,294.02
Mississippi	4,449.98	7,854.84	5,098.26			3,111.29	3,199.75	
Missouri	5,164.21	4,051.62	5,128.67		14,608.62	1,951.64	5,271.89	6,346.63
Montana		1,200.00				1,200.00	1,414.49	1,200.00
Nebraska	2,776.44	5,825.00	2,800.00		5,658.71	3,350.00	2,850.00	3,960.00
New Hampshire			2,658.00					
New Jersey		6,138.43	6,425.24		1,504.84	1,697.90	1,493.73	2,942.76
New York	7,662.22	5,122.47	86.66		10,067.22	11,656.67		7,029.99
North Dakota	2,046.19	1,869.21	1,854.19	1,797.41	2,315.33	3,098.76	1,616.29	4,773.75
Ohio	6,728.98	2,499.35	1,669.22		14,522.38	4,420.98	1,210.84	6,804.10
Oklahoma	973.85	2,248.85	1,224.70		1,363.09	933.77		
Oregon	846.71	721.30	847.92		523.66	605.00		
Pennsylvania			35,783.05					
Rhode Island	548.18	287.08	7,729.93					
South Carolina	5,021.64	7,254.04	7,055.46		9,197.31	6,362.56		
South Dakota	98.66	1,250.00	3,000.00	3,400.00	3,400.00	3,747.00		414.00
Tennessee	3,099.08	1,531.75	1,966.21		1,555.43	1,495.75		588.11
Texas	6,294.48	2,347.36	2,379.96		2,092.44	2,565.80	2,926.66	2,816.58
Utah	2,049.96	2,044.08			2,018.55	1,546.25	526.95	1,627.04
Vermont		987.91	1,690.20		1,104.71			
Virginia	35.76		139.07		181.20			
Washington	1,428.30	1,761.81	1,441.42		1,438.50		1,329.00	1,368.98
West Virginia	3,200.00	3,333.87	3,000.00		50.00			
Wisconsin	5,350.00	4,676.54	4,070.00		10,023.33	5,785.00	3,280.00	7,800.00

Total:	135,317.99	111,494.68	150,994.24	16,335.29	139,049.89	87,358.18	55,785.95	95,965.00
1928								
1927	156,911.94	121,739.30	142,608.92	15,013.11	149,780.57	87,320.54	61,630.23	110,290.84
1926	136,255.72	106,794.63	150,446.07	14,738.70	151,594.87	100,227.86	43,650.54	114,818.52
1925	164,480.17	115,788.09	169,368.58	13,478.82	174,800.00	78,561.76	34,351.92	98,595.84
1924	127,715.52	115,383.23	146,225.26	15,058.10	192,313.17			
1923	135,853.68	112,673.45	149,978.94	13,828.80	178,711.34			
1922	151,306.74	104,173.38	149,102.80	15,052.24	155,850.69			
1921	117,477.14	83,263.80	151,544.79	14,183.78	124,471.96			
1920	87,871.04	67,003.77	102,469.90	12,947.38	97,415.30			
1919	93,866.43	59,589.20	85,229.65	14,524.65	101,141.49			
1918	68,268.80	40,519.09	67,341.75	14,790.71	75,316.76			
1917	59,018.49	26,507.94	49,536.76	11,807.83	56,668.96			
1916	30,305.43	21,168.07	38,365.08	9,593.93	35,352.22			
1915	8,640.84	5,735.83	16,269.72	3,930.67	9,191.99			

* Prior to 1925 included under home economies

[illegible]

TABLE 13.—Expenditures from the United States appropriation of May 8, 1914 (State Smith-Lever) for cooperative agricultural extension work in each State for the year ended June 30, 1928, by projects, and totals for 1916-1927

States	Totals	Administra- tion	Printing and distribution of publica- tions	County agents	Home demon- stration ¹	Boys' and girls, club work	Home economics ² ³	Extension schools
Alabama.....	\$193,201.83	\$6,159.26	\$4,647.89	\$72,527.42	\$79,506.85	\$2,480.59	\$2,375.54	\$240.00
Arizona.....	22,761.23	2,499.51	314.78	7,806.32	7,005.41	538.52	2,625.00	-----
Arkansas.....	153,576.10	7,672.94	1,572.89	77,254.49	52,722.01	20,599.64	-----	-----
California.....	115,061.46	-----	-----	94,461.82	-----	3,023.14	-----	-----
Colorado.....	51,101.07	4,611.75	812.35	28,672.82	4,041.29	5,839.15	832.90	-----
Connecticut.....	46,680.09	3,384.00	1,540.00	5,206.07	744.36	2,274.49	-----	-----
Delaware.....	10,741.56	3,261.00	-----	-----	-----	-----	-----	-----
Florida.....	64,368.33	-----	718.26	19,720.90	39,657.87	6,156.86	-----	-----
Georgia.....	227,780.76	17,754.12	408.45	80,240.33	60,779.62	300.00	-----	-----
Idaho.....	32,867.74	3,193.16	193.20	14,601.38	4,675.00	-----	-----	-----
Illinois.....	218,495.98	-----	-----	218,495.98	-----	-----	-----	-----
Indiana.....	152,087.09	-----	-----	152,087.09	-----	-----	-----	-----
Iowa.....	160,596.43	-----	-----	148,596.43	10,000.00	2,000.00	-----	-----
Kansas.....	120,962.06	456.91	-----	30,076.46	854.42	-----	3,266.18	1,876.46
Kentucky.....	187,342.23	12,295.00	742.50	56,061.49	39,816.05	18,658.29	-----	4,510.00
Louisiana.....	122,963.83	11,204.93	2,428.62	39,018.56	17,200.99	3,930.44	-----	-----
Maine.....	49,217.76	6,432.37	-----	11,848.72	-----	5,840.54	-----	-----
Maryland.....	60,963.51	7,420.80	902.96	21,886.06	9,542.94	3,164.08	-----	-----
Massachusetts.....	21,234.75	-----	-----	21,234.75	-----	-----	-----	-----
Michigan.....	149,913.95	9,515.02	-----	59,162.39	1,785.00	2,424.98	-----	-----
Minnesota.....	140,319.33	1,100.00	1,272.56	106,450.33	6,045.68	10,481.97	-----	-----
Mississippi.....	162,904.83	3,969.50	-----	102,037.75	41,119.03	-----	2,143.47	829.13
Missouri.....	190,921.32	6,666.10	2,355.80	101,719.11	11,719.23	4,767.37	-----	-----
Montana.....	39,597.13	3,900.00	217.74	13,902.64	3,720.00	4,320.00	-----	-----
Nebraska.....	93,620.98	6,490.88	2,899.47	48,830.62	2,587.83	8,235.05	-----	-----
Nevada.....	6,530.11	-----	-----	1,272.06	2,200.00	153.34	-----	-----
New Hampshire.....	17,159.69	-----	-----	11,946.66	5,059.69	12,208.38	-----	-----
New Jersey.....	70,773.81	4,274.37	182.41	24,145.00	8,869.96	-----	-----	-----
New Mexico.....	31,035.53	1,372.19	-----	10,492.11	44,211.92	16,243.78	3,250.00	-----
New York.....	188,634.11	15,856.65	3,571.56	105,301.83	17,509.92	3,704.87	-----	-----
North Carolina.....	217,356.06	5,694.01	1,170.68	90,227.52	2,620.01	4,314.97	-----	-----
North Dakota.....	58,694.01	5,915.10	-----	19,915.10	12,920.15	13,826.69	-----	-----
Ohio.....	218,775.06	13,183.06	3,129.31	134,364.06	11,637.08	10,771.15	-----	-----
Oklahoma.....	156,422.88	19,259.97	-----	78,609.39	1,200.00	2,590.00	-----	-----
Oregon.....	41,224.89	4,975.38	1,829.34	14,245.16	85,794.22	17,689.91	24,198.37	-----
Pennsylvania.....	326,987.38	3,800.00	1,238.82	58,475.07	90.71	103.18	-----	-----
Rhode Island.....	1,598.82	3,813.78	23.84	397.51	37,325.11	3,638.64	-----	-----
South Carolina.....	146,014.49	13,382.75	2,848.54	85,311.02	1,670.23	966.41	-----	3,618.57
South Dakota.....	56,176.30	10,970.81	5,516.23	5,988.61	34,700.68	-----	-----	-----
Tennessee.....	181,413.63	15,742.58	2,109.48	75,246.44	82,936.77	1,697.60	-----	-----
Texas.....	331,015.26	-----	2,667.50	208,988.40	-----	-----	-----	-----

Utah.....	24,565.68	2,604.93	-----	15,587.87	3,862.62	-----	-----
Vermont.....	25,473.53	3,204.60	-----	8,822.15	4,001.29	-----	-----
Virginia.....	171,804.66	-----	13,023.50	59,766.65	43,299.20	-----	-----
Washington.....	63,868.29	4,886.85	2,980.96	14,271.40	3,483.71	-----	-----
West Virginia.....	115,015.45	681.90	3,289.30	66,750.11	21,845.37	-----	-----
Wisconsin.....	145,779.27	9,314.06	3,237.36	76,039.49	1,102.66	-----	2,150.85
Wyoming.....	14,399.74	267.70	-----	12,782.60	1,200.00	-----	-----
Total:	5,400,000.00	248,360.35	66,577.46	2,710,846.14	820,664.88	228,767.19	13,225.01
1928.....	-----	-----	-----	-----	-----	-----	-----
1927.....	5,400,000.00	240,064.19	98,681.84	2,876,107.68	728,071.31	207,667.79	36,352.87
1926.....	5,400,000.00	238,648.04	104,493.36	2,861,288.71	759,181.86	222,413.89	46,202.49
1925.....	5,399,999.99	260,230.20	80,633.60	2,871,202.68	764,356.32	180,045.94	114,996.88
1924.....	5,400,000.00	285,911.89	81,005.72	2,962,393.16	750,939.18	194,681.32	165,523.64
1923.....	5,400,000.00	332,631.65	74,414.38	2,940,071.60	831,627.67	193,457.20	104,525.11
1922.....	5,100,000.00	299,388.81	78,678.18	2,669,702.27	775,682.83	228,517.62	200,301.69
1921.....	4,600,000.00	299,526.68	76,823.58	2,348,738.60	761,014.77	215,447.91	94,802.54
1920.....	4,100,000.00	247,554.18	58,956.38	2,204,209.25	589,724.44	178,287.12	117,032.75
1919.....	2,100,000.00	252,329.45	55,540.79	941,902.93	293,869.64	112,706.28	-----
1918.....	1,600,000.00	178,212.44	40,130.89	766,416.54	197,262.21	80,315.51	28,667.68
1917.....	1,100,000.00	97,302.53	34,819.50	541,496.05	126,235.78	50,209.68	35,850.11
1916.....	600,000.00	90,055.50	15,198.34	283,077.42	68,468.44	28,473.54	36,501.94
							25,754.65

¹ Prior to 1920 included home-economics specialists.
² Prior to 1920 included under home demonstration work.
³ Prior to 1925 included foods and nutrition, home management, and clothing.

TABLE 13.—Expenditures from the United States appropriation of May 8, 1914 (State Smith-Lever), for cooperative agricultural extension work in each State for the year ended June 30, 1928, by projects, and totals for 1916-1927—Continued

States	Animal husbandry	Poultry	Dairying	Animal diseases	Agronomy	Foods and nutrition *	Home management*	Clothing *
Alabama.....	\$4, 042.33					\$3, 367.04		\$4, 016.20
Arizona.....	2, 327.31	\$593.56	\$584.24		\$1, 430.10			
Arkansas.....	1, 602.00	1, 372.60	1, 628.50		1, 709.07			1, 275.00
California.....								
Colorado.....	1, 699.53	1, 192.87			2, 202.53	824.97		1, 818.41
Connecticut.....	2, 716.15	2, 662.73	4, 108.29		1, 343.62	4, 998.88	\$2, 691.67	1, 088.22
Delaware.....								
Florida.....								
Georgia.....	4, 509.94	2, 321.46	10, 012.39	\$1, 885.94	4, 912.02	4, 271.30		743.48
Idaho.....	4, 000.00		1, 645.00		1, 040.00	852.25	1, 166.34	1, 320.00
Illinois.....								
Indiana.....								
Iowa.....								
Kansas.....	8, 874.52	7, 339.56	4, 270.59	3, 722.98	11, 791.63	6, 213.67	2, 693.33	7, 971.76
Kentucky.....	10, 046.66	7, 749.51			7, 441.66	4, 351.10		6, 499.99
Louisiana.....	11, 280.31	4, 487.37	4, 883.73			69.65		2, 735.48
Maine.....		3, 600.30	3, 752.02		4, 413.41	3, 274.21		3, 274.21
Maryland.....		2, 729.10	2, 683.87	2, 965.91	3, 095.68			
Massachusetts.....								
Michigan.....	1, 399.98		13, 301.63		28, 908.31		2, 372.18	1, 334.34
Minnesota.....	777.04	502.00	4, 300.37	1, 112.22	2, 214.76	240.00	240.00	480.00
Mississippi.....								
Missouri.....	5, 850.13	5, 947.26	5, 511.72		14, 117.24	2, 030.08	5, 708.02	4, 683.95
Montana.....						1, 900.00	1, 334.49	1, 800.00
Nebraska.....	3, 387.14	1, 595.59	1, 460.50		1, 446.21	2, 245.20	2, 769.27	1, 458.35
Nevada.....		1, 275.00	1, 783.05					
New Hampshire.....								
New Jersey.....		5, 725.00	4, 850.47		2, 010.00	2, 430.00	3, 240.00	
New Mexico.....	3, 567.67	2, 323.44	2, 323.44		5, 817.80			
New York.....	5, 650.00	3, 250.00			3, 000.00	3, 250.00		
North Carolina.....	25, 870.77	8, 914.12			13, 318.35	3, 974.14		3, 752.72
North Dakota.....	2, 825.25	1, 873.32	2, 220.00	2, 400.00	1, 303.32	2, 565.25	1, 388.29	3, 638.57
Ohio.....	6, 766.66	6, 000.00	3, 800.00		7, 700.00	3, 200.00	2, 350.00	
Oklahoma.....	3, 771.24	5, 621.62	3, 785.46		3, 000.00	2, 771.32		
Oregon.....	2, 200.00	2, 400.00	2, 200.00		775.00	1, 250.00		
Pennsylvania.....	16, 713.24	19, 712.95			21, 034.28			
Rhode Island.....	61.45	29.95			27.84			
South Carolina.....	3, 412.53	190.60						
South Dakota.....	3, 748.47	2, 790.00	1, 323.23	1, 272.06	1, 545.00	4, 794.04		3, 285.06
Tennessee.....	10, 603.79	5, 797.61	8, 623.62		7, 714.79	5, 630.77		2, 721.22
Texas.....	5, 833.17	2, 833.33	2, 831.15		3, 148.72	1, 395.23	1, 400.00	1, 400.00
Utah.....	291.62				28.64	800.04	493.92	800.04
Vermont.....		1, 096.73	2, 719.51		918.52			

Virginia.....	9, 227.58	9, 275.13	12, 170.96	-----	8, 377.42	-----	2, 748.74	-----	2, 866.37	-----	2, 821.67
Washington.....	3, 077.62	3, 335.52	2, 991.57	-----	3, 100.59	-----	-----	-----	-----	-----	-----
West Virginia.....	269.40	-----	899.50	-----	-----	-----	-----	-----	1, 057.28	-----	3, 038.02
Wisconsin.....	5, 258.45	4, 274.52	11, 625.82	-----	7, 053.42	-----	-----	2, 689.69	-----	-----	-----
Wyoming.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total:	171, 861.95	128, 812.75	122, 290.63	13, 359.11	175, 939.93	72, 137.57	31, 747.16	61, 956.69	-----	-----	-----
1928.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1927.....	150, 433.55	127, 443.57	113, 868.01	9, 806.86	152, 758.64	70, 503.52	32, 742.74	56, 960.18	-----	-----	-----
1926.....	145, 205.90	129, 600.34	118, 739.28	6, 408.24	162, 469.95	69, 537.29	25, 130.61	55, 075.63	-----	-----	-----
1925.....	150, 132.86	109, 889.36	110, 540.95	13, 609.97	132, 991.43	60, 993.43	25, 993.85	67, 048.09	-----	-----	-----
1924.....	176, 842.99	103, 904.31	133, 617.88	13, 628.91	117, 546.29	-----	-----	-----	-----	-----	-----
1923.....	150, 062.17	100, 913.09	115, 412.01	10, 546.32	115, 216.02	-----	-----	-----	-----	-----	-----
1922.....	117, 689.62	89, 407.18	88, 359.26	10, 248.45	128, 143.57	-----	-----	-----	-----	-----	-----
1921.....	104, 050.07	77, 498.14	74, 905.25	15, 728.27	100, 675.72	-----	-----	-----	-----	-----	-----
1920.....	84, 244.58	61, 520.81	50, 416.25	14, 135.15	70, 309.47	-----	-----	-----	-----	-----	-----
1919.....	55, 747.75	34, 779.81	48, 483.73	11, 498.94	42, 585.94	-----	-----	-----	-----	-----	-----
1918.....	44, 274.89	22, 973.75	45, 155.37	8, 054.15	44, 613.67	-----	-----	-----	-----	-----	-----
1917.....	27, 199.22	12, 722.78	24, 306.88	5, 230.27	26, 433.67	-----	-----	-----	-----	-----	-----
1916.....	7, 305.47	7, 102.61	9, 905.43	2, 406.88	9, 439.85	-----	-----	-----	-----	-----	-----

† Prior to 1925 included under home economics.

TABLE 13.—Expenditures from the United States appropriation of May 8, 1914 (State Smith-Lever), for cooperative agricultural extension work in each State for the year ended June 30, 1918, by projects, and totals for 1916-1927—Continued

States	Horticulture	Botany, and plant pathology	Entomology, apiculture, ornithology	Rodent pests	Forestry	Agricultural engineering	Farm management	Rural organization	Marketing	Exhibits and fairs	Publicity	Miscellaneous	Balance
Alabama	\$57.43	\$470.64	\$2,566.63			\$666.60	\$98.34		\$7,781.15	\$1,336.66	\$861.26		
Arizona													
Arkansas	1,673.08				\$215.00				1,715.00				
California													
Colorado	5,155.29		1,811.00			1,264.83	1,247.79		1,973.14		953.62		
Connecticut							4,525.86						
Delaware													
Florida	14,660.61												
Georgia	1,700.00		200.00		1,383.74	9,528.05	246.00		8,453.23	228.40	1,537.53		
Idaho													
Illinois													
Indiana													
Iowa	5,567.13	3,996.90	4,733.66	\$1,532.97		8,158.84	2,560.70		4,903.39				
Kansas	5,583.34						4,365.00		5,499.98		3,721.66		
Kentucky	11,157.47		6,276.97					\$3,754.63	674.68		3,860.00		
Louisiana					3,274.10		3,507.88						
Maine	3,482.46	120.00	200.00						1,357.33		1,412.32		
Maryland													
Massachusetts	9,640.08		3,480.00			100.00			9,840.00		6,650.04		
Michigan	107.20	1,128.46			194.58				272.16		3,400.00		
Minnesota													
Mississippi	9,034.13					5,094.42	2,566.38	1,650.00	3,034.37		2,317.37		
Missouri	3,027.70					3,386.58	3,200.00	2,540.31			5,302.26		
Montana													
Nebraska	672.32					2,531.65	2,115.69		448.23		4,446.98		
Nevada													
New Hampshire													
New Jersey	7,795.00												
New Mexico	1,645.48						408.81						
New York		1,900.00											
North Carolina	8,863.24	3,994.63	8,337.07		857.02	1,970.58					6,632.90		\$1,204.39
North Dakota						325.00	2,686.09				3,786.64		
Ohio	6,784.44					6,080.00			1,800.00				
Oklahoma	3,000.00		3,057.14			2,975.00	3,083.60		2,000.00				
Oregon	3,000.00								4,993.35		1,380.00		.60
Pennsylvania	15,745.84	15,643.59	17,631.87		7,425.29		10,499.52	10,793.89					
Rhode Island	50.58												
South Carolina									200.00		3,343.94		
South Dakota	1,745.65		981.93			1,715.05	438.27		2,839.51		1,913.51		
Tennessee	3,762.09								4,175.58				
Texas	3,000.00		2,833.17			2,833.16		2,391.61			4,825.45		

[illegible]

TABLE 14.—Sources of offset to Federal Smith-Lever Funds for the fiscal year ended June 30, 1928, by States, and totals for 1916-1927

State	Total appro- priation	State	County	Farmers' or- ganizations, etc.	Unexpended balance
Alabama.....	\$193,201.83	\$130,077.85	\$63,123.98		
Arizona.....	22,761.23	22,761.23			
Arkansas.....	153,576.10	73,500.00	80,076.10		
California.....	115,061.46	115,061.46			
Colorado.....	51,101.07	38,158.58	12,942.49		
Connecticut.....	46,680.09	46,680.09			
Delaware.....	10,741.56	10,741.56			
Florida.....	64,368.33	48,872.25	15,496.08		
Georgia.....	227,780.76	172,944.65	54,836.11		
Idaho.....	32,867.74	32,867.74			
Illinois.....	218,495.98	111,567.52		\$106,928.46	
Indiana.....	152,087.09	81,591.44	70,495.65		
Iowa.....	160,596.43		160,596.43		
Kansas.....	120,962.06	91,841.56	29,120.50		
Kentucky.....	187,342.23	142,241.30	45,100.93		
Louisiana.....	122,963.83	79,594.09	43,369.74		
Maine.....	49,217.76	49,217.76			
Maryland.....	60,963.51	60,963.51			
Massachusetts.....	21,234.75		21,234.75		
Michigan.....	149,913.95	119,308.54	30,605.41		
Minnesota.....	140,319.33	106,538.75	33,780.58		
Mississippi.....	162,904.83	70,000.00	92,904.83		
Missouri.....	190,921.32	97,188.50	93,732.82		
Montana.....	39,597.13	30,064.49	9,532.64		
Nebraska.....	93,620.98	51,545.54	42,075.44		
Nevada.....	6,530.11	6,530.11			
New Hampshire.....	17,159.69	17,159.69			
New Jersey.....	70,773.81	70,773.81			
New Mexico.....	31,035.53	31,035.53			
New York.....	188,634.11	110,275.44	77,154.28		\$1,204.39
North Carolina.....	217,356.06	169,528.27	47,827.79		
North Dakota.....	58,694.01	45,000.00	13,694.01		
Ohio.....	218,775.06	165,742.55	53,032.51		
Oklahoma.....	156,422.88	118,765.52	37,656.76		.60
Oregon.....	41,224.89	41,224.89			
Pennsylvania.....	326,987.38	274,107.07	52,880.31		
Rhode Island.....	1,598.82	1,598.82			
South Carolina.....	146,014.49	99,131.10	46,883.39		
South Dakota.....	56,176.30	56,176.30			
Tennessee.....	181,413.63	87,500.00	93,913.63		
Texas.....	331,015.26	251,326.40	79,688.86		
Utah.....	24,565.68	24,565.68			
Vermont.....	25,473.53	25,473.53			
Virginia.....	171,804.66	162,878.63	8,926.03		
Washington.....	63,868.29	63,511.49	356.80		
West Virginia.....	115,015.45	4,667.79	110,347.66		
Wisconsin.....	145,779.27	115,217.46	20,181.86	10,379.95	
Wyoming.....	14,399.74	14,399.74			
Total:					
1928.....	5,400,000.00	3,739,918.23	1,541,568.37	117,308.41	1,204.99
1927.....	5,400,000.00	3,718,271.77	1,572,968.24	107,196.73	1,563.26
1926.....	5,400,000.00	3,620,775.64	1,670,811.48	107,595.98	816.90
1925.....	5,399,999.99	3,657,975.00	1,634,787.09	106,321.80	916.10
1924.....	5,400,000.00	3,542,542.33	1,729,371.54	107,691.14	20,394.99
1923.....	5,400,000.00	3,463,045.41	1,769,973.22	107,798.26	59,183.11
1922.....	5,100,000.00	3,218,002.63	1,712,675.09	99,671.73	69,650.55
1921.....	4,600,000.00	2,966,461.61	1,518,778.45	8,808.44	105,951.50
1920.....	4,100,000.00	2,630,754.55	1,095,923.84	257,665.97	115,655.64
1919.....	2,100,000.00	1,586,066.42	316,367.59	156,394.03	41,171.96
1918.....	1,600,000.00	1,313,330.47	315,077.20	59,658.62	11,933.71
1917.....	1,100,000.00	952,114.31	94,556.74	48,383.33	4,945.62
1916.....	600,000.00	497,484.18	69,226.79	31,212.76	2,076.27

TABLE 15.—Expenditures of funds from all sources for cooperative agricultural extension work in States for the year ended June 30, 1928, by sources of funds, and totals for 1915-1927

States	Grand total	Federal total	Total within the States	United States Department of Agriculture		Federal Clarke-McNary	Federal Smith-Lever	State and college	County	Farmers' organizations, etc.
				Farmers' cooperative demonstrations	Other 1					
Alabama.....	\$528,253.49	\$238,518.03	\$289,735.46	\$33,456.20	---	\$1,860.00	\$203,201.83	\$146,342.77	\$143,392.69	---
Arizona.....	11,431.85	44,869.01	66,562.84	11,779.56	\$328.22	---	32,761.23	43,686.80	22,228.84	647.20
Arkansas.....	473,077.35	203,517.35	269,560.00	30,192.21	8,249.04	1,500.00	163,576.10	75,000.00	190,922.00	3,638.00
California.....	719,490.25	149,790.03	569,700.22	22,868.57	---	1,860.00	125,061.46	384,895.22	184,805.00	---
Colorado.....	222,671.17	87,836.18	134,834.99	22,660.19	---	875.00	61,101.07	42,916.62	59,766.17	32,152.20
Connecticut.....	256,963.71	69,265.96	187,697.75	11,960.89	---	624.98	56,680.09	131,684.24	39,500.00	16,513.51
Delaware.....	37,578.74	26,837.18	10,741.56	6,095.62	---	---	20,741.56	10,741.56	---	---
Florida.....	389,972.31	95,848.98	294,123.33	21,480.65	---	---	74,368.33	91,931.17	202,192.16	---
Georgia.....	721,090.54	275,890.54	445,200.00	36,249.78	---	1,860.00	237,780.76	224,110.00	221,090.00	---
Idaho.....	214,135.37	67,028.42	147,106.95	20,380.68	2,700.00	1,050.00	42,867.74	83,896.98	63,209.97	---
Illinois.....	954,593.00	241,588.25	713,004.75	11,442.27	---	1,650.00	28,495.98	126,017.52	31,282.41	555,704.82
Indiana.....	559,988.04	190,792.66	369,195.38	10,170.64	18,534.93	---	162,087.09	135,061.40	175,405.06	58,728.92
Iowa.....	1,019,665.11	186,345.14	833,319.97	13,888.71	---	1,860.00	170,596.43	246,858.54	303,410.43	283,051.00
Kansas.....	588,644.30	142,450.78	446,193.52	11,488.72	---	---	130,962.06	152,076.66	232,066.86	62,050.00
Kentucky.....	491,466.84	228,624.32	262,842.52	31,282.09	---	---	197,342.23	142,241.30	116,653.27	3,947.95
Louisiana.....	399,808.04	173,090.89	226,777.15	34,479.14	3,787.92	1,860.00	132,963.83	89,000.00	135,100.00	2,677.15
Maine.....	161,240.43	77,626.50	83,613.93	18,408.74	---	---	59,217.76	49,825.43	29,129.41	4,659.09
Maryland.....	325,012.56	90,430.09	234,582.47	17,614.91	---	1,851.67	70,963.51	153,846.90	60,378.64	20,356.93
Massachusetts.....	434,894.01	57,188.30	377,675.71	24,459.80	---	1,493.75	31,234.75	86,707.82	290,967.89	---
Michigan.....	634,553.74	191,926.34	442,627.40	9,893.28	20,259.11	1,860.00	159,913.95	276,284.41	166,342.99	---
Minnesota.....	476,100.40	165,530.18	310,570.22	13,350.85	---	1,860.00	150,319.33	136,230.09	146,748.10	27,592.03
Mississippi.....	531,476.67	216,499.82	314,976.85	37,369.16	4,370.00	1,855.33	172,904.83	76,955.30	238,021.55	---
Missouri.....	459,838.15	216,444.19	243,393.96	12,927.04	1,595.83	---	200,921.32	100,587.62	142,806.34	---
Montana.....	177,254.02	79,371.55	97,882.47	25,474.46	4,299.96	---	49,597.13	88,349.83	9,532.64	---
Nebraska.....	316,339.14	124,447.34	191,891.80	14,339.44	4,626.92	1,860.00	103,620.98	71,792.84	104,738.84	15,360.12
Nevada.....	96,974.42	30,703.33	66,271.09	10,973.30	3,199.92	---	16,530.11	20,141.75	46,129.34	---
New Hampshire.....	180,741.58	46,971.21	133,770.37	17,831.52	---	1,980.00	27,159.69	71,515.46	62,254.91	---
New Jersey.....	358,247.47	99,150.80	259,096.67	16,306.07	1,086.67	1,868.33	80,773.81	101,960.00	157,136.67	---
New Mexico.....	159,818.50	62,428.27	97,390.23	20,306.07	---	---	41,035.53	31,035.53	65,252.70	1,102.00
New York.....	1,377,597.10	229,134.32	1,148,462.78	11,073.05	17,881.55	2,750.00	197,429.72	465,652.36	668,015.02	14,795.40
North Carolina.....	620,958.46	261,632.95	359,275.51	22,466.89	---	1,860.00	227,356.06	178,679.51	180,596.00	2,354.49
North Dakota.....	240,353.78	94,334.08	146,019.70	24,140.07	---	1,500.00	68,694.01	58,682.38	84,982.83	---
Ohio.....	775,690.11	257,498.04	518,192.07	10,958.36	16,077.15	1,687.47	228,775.06	295,184.93	223,007.14	---
Oklahoma.....	491,282.10	195,444.13	295,837.97	29,021.85	---	---	166,422.28	118,763.52	177,072.45	---
Oregon.....	319,286.09	79,583.31	239,702.78	23,558.42	4,800.00	---	51,224.89	126,201.84	102,098.35	11,402.55
Pennsylvania.....	699,351.96	339,330.68	360,021.28	374.18	4,469.12	1,500.00	336,987.38	307,140.97	52,880.31	---

1 Prior to 1926, included funds from various other bureaus.

TABLE 15.—Expenditures of funds from all sources for cooperative agricultural extension work in States for the year ended June 30, 1928, by sources of funds, and totals for 1915-1927—Continued

States	Grand total	Federal total	Total within the States	United States Department of Agriculture		Federal Clarke-McNary	Federal Smith-Lever	State and college	County	Farmers' organizations, etc.
				Farmers' cooperative demonstrations	Other ¹					
Rhode Island.....	\$19, 196.61	\$17, 597.79	\$1, 598.82	\$5, 998.97	-----	-----	\$11, 598.82	\$1, 598.82	-----	-----
South Carolina.....	420, 926.90	187, 176.63	233, 750.27	30, 425.14	-----	\$737.00	156, 014.49	110, 862.85	\$122, 887.42	-----
South Dakota.....	264, 808.42	90, 459.05	174, 349.37	21, 782.75	\$2, 500.00	-----	66, 176.30	98, 914.13	75, 435.24	-----
Tennessee.....	452, 227.98	227, 789.46	224, 438.52	33, 995.00	520.83	-----	191, 413.63	95, 171.88	129, 266.64	-----
Texas.....	987, 160.23	396, 788.02	590, 377.21	53, 907.76	-----	1, 860.00	341, 015.26	253, 186.40	304, 578.60	\$32, 612.21
Utah.....	108, 175.50	59, 791.13	48, 384.37	16, 568.25	8, 657.20	-----	34, 565.68	43, 109.38	3, 115.62	2, 159.37
Vermont.....	136, 871.38	56, 960.43	79, 910.95	17, 791.90	1, 835.00	-----	35, 473.53	33, 200.00	38, 555.97	8, 154.98
Virginia.....	537, 572.78	214, 357.18	323, 215.60	31, 002.54	-----	1, 549.98	181, 804.66	205, 251.44	101, 232.48	7, 132.93
Washington.....	263, 126.27	97, 943.30	165, 182.97	24, 075.01	-----	-----	73, 868.29	66, 942.97	91, 107.07	-----
West Virginia.....	393, 512.46	143, 754.90	249, 757.56	16, 879.45	133, 910.77	1, 860.00	125, 015.45	133, 910.77	115, 846.79	-----
Wisconsin.....	460, 884.62	165, 566.74	295, 317.88	7, 807.47	-----	1, 980.00	155, 779.27	163, 857.18	121, 080.75	10, 379.95
Wyoming.....	107, 089.71	44, 248.25	62, 841.46	17, 362.44	2, 486.07	-----	24, 399.74	62, 841.46	-----	-----
Total: 1928.....	20, 677, 423.66	7, 040, 447.03	13, 636, 976.63	979, 522.15	131, 465.36	50, 664.51	5, 878, 795.01	6, 210, 948.55	6, 232, 223.56	1, 193, 904.52
1927.....	20, 147, 319.39	6, 991, 664.21	13, 155, 655.18	986, 893.90	83, 081.91	43, 251.66	5, 878, 433.74	5, 855, 177.85	6, 104, 682.36	1, 195, 794.97
1926.....	19, 485, 492.81	6, 907, 747.89	12, 577, 744.89	967, 166.73	123, 377.72	32, 020.34	5, 879, 183.10	5, 766, 165.92	5, 667, 425.56	1, 144, 153.44
1925.....	19, 332, 371.40	7, 070, 330.90	12, 262, 040.50	962, 390.34	223, 856.67	-----	5, 879, 083.89	5, 636, 721.89	5, 528, 601.25	1, 096, 717.36
1924.....	19, 082, 025.04	7, 085, 826.81	11, 996, 198.23	991, 900.82	234, 320.98	-----	5, 859, 605.01	5, 239, 420.54	5, 612, 556.56	1, 144, 221.13
1923.....	18, 484, 845.00	7, 101, 078.42	11, 383, 766.58	1, 004, 729.29	275, 532.24	-----	5, 820, 816.89	5, 175, 811.94	5, 189, 974.03	1, 017, 980.61
1922.....	17, 181, 751.64	6, 727, 153.86	10, 454, 597.78	1, 007, 263.48	209, 540.93	-----	5, 510, 349.45	4, 715, 382.34	4, 685, 415.50	1, 053, 799.64
1921.....	16, 792, 248.32	6, 434, 178.53	10, 358, 069.79	1, 025, 083.33	435, 046.70	-----	4, 974, 048.50	4, 516, 358.91	4, 812, 344.83	1, 029, 366.05
1920.....	14, 658, 079.92	5, 891, 456.71	8, 766, 623.21	1, 021, 091.39	406, 020.96	-----	4, 404, 344.36	3, 875, 220.27	3, 961, 663.71	929, 739.23
1919.....	14, 661, 560.50	9, 039, 041.38	5, 622, 519.12	5, 564, 839.70	935, 373.64	-----	2, 538, 828.04	2, 487, 894.91	2, 607, 576.89	527, 047.32
1918.....	11, 302, 764.75	6, 475, 755.54	4, 827, 009.21	3, 900, 406.30	507, 282.95	-----	2, 068, 066.29	2, 194, 421.72	2, 078, 709.49	553, 878.00
1917.....	6, 149, 619.63	2, 719, 281.40	3, 430, 338.23	958, 333.87	185, 893.15	-----	1, 575, 054.38	1, 784, 228.47	1, 352, 852.88	293, 256.88
1916.....	4, 864, 180.94	2, 143, 485.66	2, 720, 695.28	900, 389.92	165, 172.01	-----	1, 077, 923.73	1, 370, 218.08	1, 042, 478.35	307, 998.85
1915.....	3, 597, 235.85	1, 485, 885.13	2, 111, 350.72	905, 782.00	105, 168.40	-----	474, 934.73	1, 044, 270.38	780, 331.79	286, 748.55

¹ Prior to 1926, included funds from various other bureaus.

² Includes \$4,598,243.13 emergency funds.

³ Includes \$2,949,072.48 emergency funds.

TABLE 16.—Total expenditures of funds from all sources for cooperative agricultural extension work in States for the year ended June 30, 1928, by items of expense, and totals for 1915–1927

States	Total appropriation	Personal services, salaries, and labor	Printing, binding, and cuts for publications	Supplies and material	Communication	Transportation of things	Heat, light, water, and power	Equipment	Travel expenses	Miscellaneous
Alabama	\$528, 253.49	\$467, 071.88	\$5, 246.87	\$9, 444.02	\$3, 863.98	\$727.69	\$81.55	\$3, 663.28	\$36, 610.60	\$1, 543.62
Arizona	111, 431.85	80, 725.97	389.63	1, 630.77	1, 261.32	138.58	89.48	730.40	25, 035.44	1, 430.26
Arkansas	473, 077.35	396, 983.30	1, 330.26	1, 884.56	1, 792.54	214.30	---	2, 125.74	65, 397.25	3, 349.40
California	719, 490.25	538, 709.04	233.78	28, 525.30	8, 775.67	1, 363.08	787.60	9, 052.55	119, 145.27	12, 897.96
Colorado	222, 671.17	141, 921.84	3, 694.15	14, 505.80	3, 912.77	1, 123.39	63.90	1, 253.82	46, 726.46	9, 467.04
Connecticut	256, 963.71	165, 500.42	4, 327.34	8, 338.50	5, 965.50	636.26	2, 454.80	2, 252.02	55, 259.39	12, 229.48
Delaware	37, 578.74	27, 837.20	512.53	1, 165.71	731.60	29.17	---	273.60	7, 028.93	---
Florida	389, 972.31	343, 105.11	4, 046.62	9, 534.48	1, 226.96	374.40	107.18	2, 745.58	28, 235.07	596.91
Georgia	721, 090.54	602, 931.38	5, 220.81	9, 591.77	3, 869.77	195.06	1, 923.36	11, 077.42	44, 314.73	41, 966.24
Idaho	214, 135.37	142, 439.61	1, 506.97	4, 448.54	4, 448.54	759.18	98.55	2, 735.72	49, 793.74	2, 270.39
Illinois	954, 593.00	624, 231.33	3, 845.17	52, 596.66	31, 572.15	2, 300.15	6, 788.14	32, 547.72	87, 796.06	112, 915.62
Indiana	559, 988.04	435, 151.53	2, 299.65	26, 777.96	7, 044.19	826.05	155.38	2, 777.36	80, 813.37	4, 142.85
Iowa	1, 019, 665.11	664, 480.60	29, 888.83	44, 466.15	37, 219.16	8, 308.61	4, 066.00	10, 857.06	148, 410.70	72, 268.00
Kansas	588, 644.30	405, 074.08	3, 768.28	25, 818.00	12, 802.91	1, 143.10	750.96	30, 361.61	105, 034.53	46, 080.85
Kentucky	491, 466.84	376, 895.05	638.80	1, 974.72	1, 897.89	682.48	3, 600.00	691.05	31, 921.66	352.32
Louisiana	399, 868.04	362, 108.03	945.82	2, 640.02	1, 035.39	277.14	---	654.18	32, 476.42	285.80
Maine	161, 240.43	111, 969.53	1, 258.02	7, 321.60	3, 675.30	332.10	2, 041.30	2, 051.09	59, 054.26	115.07
Maryland	325, 012.56	238, 503.65	1, 493.24	14, 080.48	2, 496.82	2, 392.83	1, 000.00	1, 757.38	155, 625.06	4, 233.90
Massachusetts	434, 864.01	264, 398.02	2, 326.28	5, 835.73	2, 777.52	386.47	---	1, 589.07	83, 606.40	1, 925.86
Michigan	634, 553.74	512, 466.90	11, 222.16	11, 199.88	4, 644.95	686.76	---	9, 666.41	92, 567.53	1, 060.28
Minnesota	476, 100.40	347, 501.53	7, 988.85	11, 512.04	8, 486.87	927.61	297.00	3, 900.13	29, 167.95	2, 858.84
Mississippi	531, 476.67	492, 107.45	1, 901.59	3, 491.97	2, 240.67	188.81	697.65	602.08	92, 803.27	1, 078.50
Missouri	459, 838.15	333, 623.94	3, 422.44	15, 432.18	7, 072.69	692.08	223.55	3, 010.38	92, 567.53	3, 557.62
Montana	177, 254.02	149, 733.11	1, 279.51	4, 737.56	891.89	311.14	840.35	321.15	19, 137.01	2, 30
Nebraska	316, 339.14	236, 868.54	1, 881.55	12, 647.95	7, 566.88	780.42	352.78	5, 006.06	45, 536.50	5, 698.46
Nevada	96, 974.42	59, 516.17	1, 149.75	3, 040.33	1, 946.81	394.53	239.81	3, 311.76	21, 790.41	6, 584.85
New Hampshire	180, 741.58	123, 083.70	2, 646.04	6, 797.03	2, 180.38	622.26	925.73	3, 729.08	36, 642.52	4, 114.84
New Jersey	358, 247.47	263, 761.55	3, 959.35	15, 820.03	3, 865.38	631.78	153.96	10, 462.62	53, 588.84	6, 273.96
New Mexico	159, 818.50	101, 753.79	1, 457.67	3, 718.80	2, 045.26	632.22	---	1, 647.52	48, 067.18	496.06
New York	1, 377, 597.10	825, 367.36	101, 703.55	48, 148.76	31, 669.50	2, 441.48	52, 346.08	47, 050.07	164, 877.05	103, 993.25
North Carolina	620, 958.46	501, 082.49	4, 599.39	5, 729.31	2, 245.59	631.56	9.00	4, 650.71	98, 368.70	6, 851.72
North Dakota	240, 353.78	167, 457.77	3, 516.31	4, 326.39	888.26	358.24	5, 000.00	4, 924.35	57, 986.29	169.81
Ohio	775, 690.11	591, 333.56	14, 376.25	20, 386.61	6, 494.11	458.22	---	945.13	130, 263.04	7, 253.97
Oklahoma	491, 282.10	444, 390.72	7, 735.76	4, 765.28	1, 628.49	277.61	302.71	3, 909.85	31, 713.61	25.50
Oregon	319, 286.09	228, 553.18	1, 795.97	13, 189.14	7, 163.69	907.95	---	828.47	59, 625.23	3, 838.37
Pennsylvania	699, 351.96	526, 041.86	1, 782.00	8, 456.34	11, 575.11	412.93	1, 577.22	6, 663.45	144, 273.88	4, 404.15
Rhode Island	19, 196.61	14, 247.55	100.84	1, 261.73	140.57	49.25	---	828.47	2, 762.41	---
South Carolina	420, 926.90	361, 349.51	4, 755.17	6, 832.60	3, 733.83	326.65	617.00	1, 047.11	36, 992.68	5, 252.35
South Dakota	264, 808.42	200, 885.23	1, 168.47	7, 781.07	1, 884.85	877.90	321.80	1, 824.07	50, 486.87	378.16
Tennessee	452, 227.98	395, 114.11	5, 115.54	7, 302.59	2, 734.44	856.68	1, 253.50	1, 404.78	36, 034.90	2, 411.44
Texas	987, 160.23	827, 672.22	6, 727.60	7, 453.80	3, 803.68	440.02	---	663.45	140, 342.43	57.03

TABLE 16.—*Total expenditures of funds from all sources for cooperative agricultural extension work in States for the year ended June 30, 1928, by items of expense, and totals for 1915-1927—Continued*

States	Total appro- priation	Personal serv- ices, salaries, and labor	Printing, binding, and cuts for pub- lications	Supplies and material	Communica- tion service	Transporta- tion of things	Heat, light, water, and power	Equipment	Travel expenses	Miscella- neous
Utah.....	\$108,175.50	\$91,671.69	\$561.91	\$2,037.81	\$402.46	\$125.44	-----	\$491.71	\$12,391.37	\$493.11
Vermont.....	136,871.38	90,149.22	536.55	7,254.10	2,758.29	473.41	\$360.00	5,456.10	25,877.54	4,005.87
Virginia.....	537,572.78	441,923.22	10,626.11	6,085.40	2,590.33	668.55	117.43	1,841.06	73,045.81	674.87
Washington.....	263,126.27	189,471.00	4,969.30	12,337.12	4,505.40	893.48	2.60	6,301.87	43,750.31	895.19
West Virginia.....	393,512.46	324,690.24	5,647.89	5,664.67	2,232.06	579.45	527.55	23,727.12	30,063.48	330.00
Wisconsin.....	460,884.62	324,110.09	10,523.09	3,068.41	5,738.99	187.71	-----	1,486.58	102,051.19	13,718.56
Wyoming.....	107,089.71	90,783.89	1,012.20	2,267.50	505.86	105.71	-----	123.95	12,290.60	-----
Total:										
1928.....	20,677,423.66	15,646,449.16	296,136.16	537,921.00	269,407.27	38,879.89	90,173.92	265,727.18	3,017,628.45	515,100.63
1927.....	20,147,319.39	15,106,156.34	308,999.13	547,306.70	278,925.49	34,512.35	86,308.32	235,941.92	3,045,401.81	503,767.33
1926.....	19,485,492.81	14,645,209.97	332,887.97	523,105.44	270,258.81	32,076.21	77,008.93	240,983.21	2,899,159.58	464,852.59
1925.....	19,332,371.40	14,376,987.22	317,825.82	515,783.58	255,634.14	33,419.12	85,051.59	279,476.73	3,000,956.41	467,236.79
1924.....	19,082,025.04	13,960,024.41	344,036.82	771,311.06	233,704.70	27,215.82	63,155.12	176,912.37	3,147,711.34	357,953.70
1923.....	18,484,845.00	13,669,718.39	336,906.94	477,957.00	194,642.98	123,567.34	54,900.21	148,038.03	3,031,252.99	545,861.12
1922.....	17,181,751.64	12,740,999.28	395,859.62	410,592.62	186,562.01	-----	47,197.29	129,259.56	2,765,227.90	506,053.36
1921.....	16,792,248.32	12,416,878.29	382,034.06	516,051.82	195,275.08	-----	48,735.14	140,983.36	2,873,523.01	218,767.56
1920.....	14,658,079.92	10,481,790.44	308,629.24	433,337.62	137,230.47	-----	36,471.25	134,720.51	2,807,798.73	318,101.66
1919.....	14,061,560.50	10,649,803.53	263,371.74	493,138.35	133,351.26	-----	185,407.12	185,407.12	2,735,151.37	181,762.77
1918.....	11,302,764.75	8,335,805.69	190,267.35	417,264.23	127,128.31	-----	18,246.60	216,040.27	1,830,764.70	167,247.60
1917.....	6,149,619.63	4,490,900.05	144,777.26	230,752.18	68,330.02	-----	6,214.88	87,223.27	1,023,405.63	98,016.34
1916.....	4,864,180.94	3,514,061.85	98,850.56	176,793.16	48,709.30	-----	4,842.21	95,182.98	849,259.37	76,481.51
1915.....	3,597,235.85	2,886,923.95	72,090.72	105,526.62	37,437.90	-----	9,614.79	63,084.01	603,432.74	19,125.12

1 Prior to 1923, transportation of things was included in communication service.

TABLE 17.—Expenditures of funds from all sources for cooperative agricultural extension work in States for the year ended June 30, 1928, by projects, and totals for 1915-1927

States	Totals	Administra- tion	Printing and distribution of publica- tions	County agent work	Home demon- stration work	Boys' and girls' club work	Home eco- nomics specialists	Extension schools
Alabama.....	\$528,253.49	\$20,554.61	\$5,700.82	\$236,566.93	\$170,734.70	\$10,170.32	\$2,858.87	\$4,725.22
Arizona.....	111,431.85	12,462.33	7,389.63	65,316.76	21,153.62	5,441.05	---	---
Arkansas.....	473,077.35	15,495.03	7,816.79	252,544.76	150,279.96	30,432.99	7,306.85	---
California.....	719,490.25	13,607.77	---	432,342.52	147,764.06	---	---	4,946.32
Colorado.....	222,671.17	11,818.15	4,646.58	107,594.38	13,632.18	18,987.49	---	---
Connecticut.....	256,963.71	18,255.98	5,253.35	59,917.46	33,214.21	51,173.23	3,625.95	956.60
Delaware.....	37,578.74	6,381.79	3,512.53	14,727.09	3,271.44	12,373.29	---	---
Florida.....	389,972.31	9,015.22	4,160.67	195,241.84	133,638.79	7,664.41	---	2,565.74
Georgia.....	721,090.54	29,184.85	5,220.81	343,206.03	168,886.20	16,046.96	---	---
Idaho.....	214,135.37	11,739.75	1,384.82	112,352.81	21,378.87	3,461.78	---	898.83
Illinois.....	954,593.00	19,540.62	4,703.27	745,103.33	89,303.98	14,500.05	5,259.42	---
Indiana.....	559,988.04	25,906.08	2,299.65	325,075.21	13,102.97	44,322.27	---	46,940.68
Iowa.....	1,019,665.11	64,462.69	11,091.34	644,605.43	43,063.43	27,889.24	942.47	---
Kansas.....	588,644.30	21,969.89	5,573.01	376,630.18	63,054.22	17,217.50	3,632.68	31,798.92
Kentucky.....	491,466.84	19,636.71	3,198.78	240,908.84	64,295.55	31,047.80	---	7,373.28
Louisiana.....	399,868.04	19,137.94	2,428.62	215,388.10	98,674.83	10,110.40	---	---
Maine.....	161,240.43	11,570.79	1,258.02	66,843.66	47,023.62	7,340.54	---	607.67
Maryland.....	325,012.56	16,502.75	1,946.40	117,567.85	87,614.21	8,081.65	---	---
Massachusetts.....	434,864.01	18,540.23	7,978.24	139,190.00	92,141.29	13,583.62	---	4,510.09
Michigan.....	634,553.74	12,317.38	9,133.30	296,952.39	27,648.52	47,610.83	---	---
Minnesota.....	476,100.40	23,364.69	10,067.06	289,290.15	24,006.32	47,331.10	---	---
Mississippi.....	531,476.67	24,813.12	1,901.59	252,697.32	175,401.54	19,634.38	---	---
Missouri.....	459,838.15	13,920.00	5,558.83	258,098.98	36,280.53	21,756.82	4,515.98	1,276.18
Montana.....	177,254.02	15,829.64	2,128.02	66,952.50	20,014.15	9,439.04	---	2,061.33
Nebraska.....	316,339.14	14,574.03	4,126.01	190,460.69	8,501.07	16,449.98	---	---
Nevada.....	96,974.42	9,563.10	149.75	59,077.68	25,125.84	---	---	---
New Hampshire.....	180,741.58	12,244.17	1,898.67	50,057.19	43,408.17	46,816.28	---	1,035.50
New Jersey.....	358,247.47	14,323.86	4,452.19	140,316.16	70,941.98	44,732.10	---	---
New Mexico.....	159,818.50	12,091.91	5,038.00	97,780.64	26,860.20	---	---	---
New York.....	1,377,597.10	117,505.07	63,915.18	449,741.87	227,829.09	158,884.44	26,469.98	41,697.56
North Carolina.....	620,958.46	21,313.22	3,571.56	323,234.98	172,061.16	4,308.97	---	---
North Dakota.....	240,353.78	17,771.55	4,441.31	141,366.04	7,779.17	10,205.93	---	---
Ohio.....	775,690.11	56,814.27	7,806.19	328,001.52	77,665.47	58,241.87	4,125.76	41,032.34
Oklahoma.....	491,282.10	27,595.74	10,579.26	241,923.33	151,363.93	14,708.07	---	---
Oregon.....	319,286.09	35,799.17	2,646.69	168,865.78	13,356.82	43,017.85	---	---
Pennsylvania.....	699,351.96	70,018.91	1,829.34	290,075.36	96,588.66	18,170.81	27,242.96	621.20
Rhode Island.....	19,196.61	2,801.58	105.32	4,975.31	4,023.15	---	---	---
South Carolina.....	420,926.90	25,369.78	5,715.30	185,884.42	114,422.43	9,000.61	---	---
South Dakota.....	264,808.42	15,511.23	5,541.23	149,052.16	31,048.34	10,793.02	---	---
Tennessee.....	452,227.98	30,084.49	5,115.54	242,869.16	4,932.74	4,932.74	---	6,360.07
Texas.....	987,160.23	30,520.65	7,865.19	566,582.16	294,959.42	4,758.84	---	---
Utah.....	108,175.50	9,104.22	7,434.25	57,148.07	13,712.12	3,878.41	---	---

Maine	3, 690.30	3, 752.02	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Maryland	4, 139.52	9, 544.70	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Massachusetts	5, 776.32	22, 152.49	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Michigan	18, 802.97	20, 993.86	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Minnesota	5, 175.01	5, 103.01	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Mississippi	7, 900.18	10, 813.18	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Missouri	10, 040.53	3, 468.71	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Montana	5, 271.13	5, 264.53	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Nebraska	7, 816.11	1, 783.05	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Nevada	1, 275.00	4, 117.87	4, 536.27	4, 413.41	3, 274.21	3, 274.21
New Hampshire	4, 402.88	11, 372.09	4, 536.27	4, 413.41	3, 274.21	3, 274.21
New Jersey	12, 843.43	2, 323.44	4, 536.27	4, 413.41	3, 274.21	3, 274.21
New Mexico	2, 323.44	8, 404.35	4, 536.27	4, 413.41	3, 274.21	3, 274.21
New York	24, 092.17	4, 679.84	4, 536.27	4, 413.41	3, 274.21	3, 274.21
North Carolina	8, 940.12	9, 319.85	4, 536.27	4, 413.41	3, 274.21	3, 274.21
North Dakota	4, 678.75	5, 010.16	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Ohio	11, 055.84	4, 837.97	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Oklahoma	7, 870.47	37, 433.20	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Oregon	4, 657.17	8, 491.66	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Pennsylvania	17, 900.61	4, 563.23	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Rhode Island	317.03	10, 589.83	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Rhode Island	7, 444.64	5, 211.11	4, 536.27	4, 413.41	3, 274.21	3, 274.21
South Carolina	4, 291.08	4, 758.85	4, 536.27	4, 413.41	3, 274.21	3, 274.21
South Dakota	3, 947.13	14, 953.24	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Tennessee	7, 929.36	4, 432.99	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Texas	5, 180.69	6, 636.71	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Texas	12, 127.65	17, 130.18	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Utah	3, 141.93	1, 774.70	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Vermont	9, 263.34	4, 558.62	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Virginia	4, 512.74	4, 539.09	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Washington	5, 097.33	2, 101.76	4, 536.27	4, 413.41	3, 274.21	3, 274.21
West Virginia	6, 960.62	17, 076.75	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Wisconsin	29, 551.37	4, 422.19	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Wyoming	2, 431.26	4, 422.19	4, 536.27	4, 413.41	3, 274.21	3, 274.21
Total:	409, 316.08	356, 780.70	36, 688.66	437, 965.97	194, 941.97	201, 927.94
1928	417, 323.02	337, 172.79	30, 799.85	403, 985.27	187, 204.08	205, 573.74
1927	345, 716.18	333, 497.75	30, 424.76	399, 490.81	187, 897.17	196, 243.18
1926	368, 775.08	333, 405.85	35, 842.58	413, 403.27	153, 450.45	183, 231.83
1925	355, 517.40	395, 267.26	36, 761.09	417, 938.06		
1924	338, 874.66	369, 724.59	54, 798.23	388, 279.58		
1923	334, 436.03	289, 773.00	40, 492.07	350, 605.55		
1922	300, 270.51	209, 454.02	36, 532.87	281, 547.94		
1921	231, 141.57	151, 161.93	63, 200.89	218, 019.26		
1920	380, 168.56	289, 756.98	71, 678.74	170, 534.71		
1919	309, 270.72	332, 852.55	31, 777.11	153, 211.24		
1918	162, 063.74	208, 966.83	44, 215.50	105, 529.87		
1917	131, 937.90	172, 557.69	21, 936.02	77, 859.05		
1916	42, 448.08	106, 098.08	4, 563.64	20, 912.81		
1915						

¹ Prior to 1920 included home-economics specialists.

² Prior to 1920 included under home demonstration work.

³ Prior to 1925 included foods and nutrition, home management, and clothing.

⁴ Prior to 1925 included under home economics.

TABLE 17.—Expenditures of funds from all sources for cooperative agricultural extension work in States for the year ended June 30, 1928, by projects, and totals for 1915-1927—Continued

States	Horticulture	Botany and plant pathology	Entomology, apiculture, ornithology	Rodent pests	Forestry	Agricultural engineering	Farm management	Rural organization	Marketing	Exhibits and fairs	Publicity	Miscellaneous specialists
Alabama	\$4,568.99	\$521.77	\$3,683.16		\$3,720.00	\$6,473.85	\$610.12		\$8,463.00	\$6,947.66	\$8,724.36	\$8,510.86
Arizona												
Arkansas	5,031.09				3,822.68		1,375.10		4,314.69			
California	10,239.76				3,720.00	11,020.75	4,845.32		10,413.31	5,900.88		11,194.31
Colorado					2,561.24		5,549.69		1,465.73		5,454.69	1,860.42
Connecticut	12,148.92		2,469.34		1,459.81	3,081.88	7,374.05		6,960.92		3,300.00	1,012.73
Delaware		312.60										
Florida		5,410.42									1,850.00	
Georgia	15,287.31				8,297.11	10,117.01	3,316.00		8,765.36	3,462.77	10,275.90	37,250.00
Idaho	9,342.06		1,524.65	\$4,436.37	2,179.64						73.60	
Illinois	7,719.89				3,300.00		9,277.84				3,517.75	
Indiana	7,328.91	8,147.93	175.21			3,216.40	6,570.90					18,534.93
Iowa	9,283.99	4,236.26	12,955.27		4,317.91	2,174.17	7,366.34	\$6,786.23	30,589.70	3,126.88	6,775.71	9,294.25
Kansas	5,618.73	4,095.69	4,874.47	1,710.43		4,835.73	4,104.44		4,949.23		6,189.63	
Kentucky	8,991.94					10,058.84	5,933.80		7,434.97		4,653.19	
Louisiana	12,007.47		6,276.97		3,840.00	5,501.42		3,754.63	674.68		3,860.00	
Maine					3,274.10		5,007.88					
Maryland	11,612.31	9,544.20	15,175.76		3,703.34				21,080.59		3,044.37	5,406.62
Massachusetts	14,649.61	43.74			3,000.60	19.42	5,232.00		4,012.40	2,237.71		
Michigan	20,501.85		5,490.71		4,642.51	24,516.51		30.08	15,384.87		16,225.64	20,259.11
Minnesota	166.68	4,094.67	1,519.41		4,586.20		4,471.69		2,072.16		6,338.50	
Mississippi	9,034.13				3,711.66	5,094.42		5,152.18	10,099.21			
Missouri	5,449.08					5,779.84	4,947.58	4,673.22	5,623.55	171.71	4,262.51	
Montana	4,916.77	1,198.04	2,133.16			530.00	7,495.15				4,522.04	4,523.71
Nebraska	3,747.21				4,205.93	9,507.29	5,174.18	3,529.33	3,525.10		6,727.18	
Nevada												
New Hampshire	3,441.37				3,960.00		4,684.25					
New Jersey	13,460.95				5,110.71	1,799.89	8,222.88				4,452.00	
New Mexico	1,645.48						2,369.92					
New York	21,910.42	22,925.58	10,862.17		6,769.02	13,067.80	19,524.63	8,558.54			63,915.19	17,881.55
North Carolina	8,988.24	4,027.58	8,342.74		4,580.17	1,993.11	5,884.39				6,632.90	5,397.21
North Dakota					3,000.00	1,741.35	20,183.58				6,352.63	901.52
Ohio	22,070.34	3,322.46	12,087.07		3,744.52	14,072.10	4,117.62		9,258.86		9,163.79	16,077.15
Oklahoma	4,310.34		4,119.17			4,051.18			2,819.56			
Oregon	5,422.95					207.88	2,267.88		11,538.17		16,529.87	
Pennsylvania	24,347.60	15,961.57	19,251.66		10,794.28		11,126.74	11,761.63			3,500.00	469.12
Rhode Island	761.50											
South Carolina	7,102.83	883.41	6,974.82		737.00				14,955.47		6,709.27	
South Dakota	3,019.25		1,698.33			1,570.05	1,438.27		6,201.89		2,798.24	
Tennessee	4,949.77				3,889.00				5,322.18			
Texas	5,155.87		5,420.00		3,720.00	4,998.22		8,686.95			14,228.05	

[illegible]

TABLE 18.—Number of counties in each State having men county extension agents (white), July 1, 1914-1928

State	Number of counties	July 1—										
		1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
Alabama.....	67	67	67	65	62	66	65	55	55	55	54	59
Arizona.....	14	---	3	6	7	11	11	10	9	11	11	10
Arkansas.....	75	45	52	53	61	68	66	58	44	40	47	45
California.....	58	4	11	13	17	33	35	35	37	40	41	40
Colorado.....	63	13	13	19	16	29	27	24	24	26	23	28
Connecticut.....	8	1	6	7	8	8	8	8	8	8	7	8
Delaware.....	3	---	3	3	2	3	3	3	3	3	3	3
Florida.....	67	25	36	33	37	53	47	32	31	33	37	33
Georgia.....	161	80	81	83	117	120	134	97	85	98	88	89
Idaho.....	44	2	3	7	11	27	32	34	32	28	21	19
Illinois.....	102	14	18	20	22	53	63	81	85	85	94	95
Indiana.....	92	27	31	32	40	83	99	68	82	85	86	82
Iowa.....	99	9	11	16	26	97	99	99	99	99	99	99
Kansas.....	105	9	39	56	53	67	53	51	59	56	58	57
Kentucky.....	120	28	39	47	45	90	71	53	61	61	59	67
Louisiana.....	64	41	43	43	42	58	55	41	38	45	45	46
Maine.....	16	---	3	4	9	16	16	16	16	16	16	16
Maryland.....	25	8	13	16	23	22	22	22	23	22	23	23
Massachusetts.....	14	1	10	9	11	13	13	11	11	11	11	11
Michigan.....	83	11	17	22	30	71	63	60	64	69	64	57
Minnesota.....	87	27	23	19	16	85	86	82	83	77	67	62
Mississippi.....	82	48	49	44	53	79	75	71	50	56	56	56
Missouri.....	114	13	15	14	15	71	52	47	58	55	54	53
Montana.....	55	4	8	7	12	23	24	27	26	26	24	23
Nebraska.....	93	5	8	9	8	79	54	39	46	42	42	41
Nevada.....	17	---	---	---	6	8	4	6	7	9	11	11
New Hampshire.....	10	1	5	8	9	10	10	9	10	10	10	10
New Jersey.....	21	4	7	11	10	17	18	18	18	18	18	19
New Mexico.....	31	---	8	9	11	25	26	22	19	18	22	20
New York.....	62	25	29	36	41	56	55	55	55	55	55	55
North Carolina.....	100	51	64	65	69	91	87	77	59	66	73	76
North Dakota.....	53	17	15	12	17	38	32	28	36	36	33	34
Ohio.....	88	8	10	12	20	63	65	63	80	83	85	81
Oklahoma.....	77	40	56	59	62	77	70	73	71	74	67	61
Oregon.....	36	10	12	13	14	24	23	26	26	24	22	21
Pennsylvania.....	67	10	14	22	45	53	40	54	57	63	60	63
Rhode Island.....	5	---	4	4	4	5	4	4	4	4	4	4
South Carolina.....	46	43	43	42	40	43	45	45	42	42	38	39
South Dakota.....	69	3	5	11	13	59	36	39	43	48	43	36
Tennessee.....	95	36	38	48	57	91	76	45	38	41	48	54
Texas.....	254	98	99	90	92	178	168	127	128	143	148	149
Utah.....	29	8	10	8	15	28	22	21	19	19	22	21

Vermont.....	14	7	9	11	13	13	12	13	11	13	12	13	13
Virginia.....	100	53	55	51	75	61	57	67	70	65	65	67	71
Washington.....	39	7	10	13	34	29	32	28	24	25	26	26	27
West Virginia.....	55	13	27	29	45	48	40	31	39	36	44	44	44
Wisconsin.....	71	9	12	13	22	59	41	50	47	47	52	54	51
Wyoming.....	24	3	6	8	13	15	14	16	16	18	16	17	18
Total.....	3,072	928	1,136	1,225	1,436	2,435	2,247	2,033	2,043	2,114	2,149	2,191	2,256

TABLE 19.—Number of counties in each State having women county extension agents (white, home demonstration work), July 1, 1914–1928

State	Number of counties	July 1—														
		1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Alabama.....	67	18	19	27	28	67	54	32	36	34	34	35	37	38	38	39
Arizona.....	14	15	20	31	47	3	6	6	8	10	9	11	9	8	9	18
Arkansas.....	75	58	58	58	57	65	58	42	34	32	38	42	39	35	42	46
California.....	58	63	63	63	63	24	8	10	10	16	21	23	22	23	26	25
Colorado.....	63	63	63	63	63	7	3	2	1	2	2	4	2	6	5	11
Connecticut.....	8	8	8	8	8	8	6	6	3	5	6	6	7	6	6	6
Delaware.....	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2
Florida.....	67	24	27	28	35	54	42	29	28	29	24	31	30	32	30	28
Georgia.....	161	29	48	45	57	125	93	66	66	70	68	64	61	61	58	70
Idaho.....	44	44	44	44	44	24	4	5	5	21	30	30	27	18	10	143
Illinois.....	102	102	102	102	102	88	17	11	11	11	16	21	21	22	22	20
Indiana.....	92	92	92	92	92	22	8	5	3	2	2	1	1	1	1	1
Iowa.....	99	99	99	99	99	96	23	19	21	18	17	13	15	12	14	12
Kansas.....	105	105	105	105	105	14	8	9	7	8	9	10	15	17	16	23
Kentucky.....	120	9	19	24	27	96	74	18	19	26	24	24	24	25	21	20
Louisiana.....	64	13	13	18	20	33	32	24	25	26	28	28	24	25	25	38
Maine.....	16	16	16	16	16	14	2	5	10	14	15	15	15	15	15	15
Maryland.....	23	5	6	10	13	22	23	21	17	16	17	18	19	19	18	20
Massachusetts.....	14	14	14	14	14	12	10	9	9	11	10	10	11	11	11	11
Michigan.....	83	83	83	83	83	24	13	12	10	8	7	7	8	8	5	6
Minnesota.....	87	87	87	87	87	39	8	8	7	4	3	8	8	8	6	4
Mississippi.....	82	33	33	32	49	71	64	53	35	48	51	45	44	43	47	50
Missouri.....	114	114	114	114	114	48	20	11	14	13	8	11	9	9	7	12
Montana.....	55	55	55	55	55	18	11	9	7	11	7	5	6	6	7	12
Nebraska.....	93	93	93	93	93	30	10	7	7	3	3	2	2	1	1	12
Nevada.....	17	17	17	17	17	10	5	5	6	4	4	4	9	9	6	8
New Hampshire.....	10	10	10	10	10	9	5	3	5	6	8	7	8	8	9	10
New Jersey.....	21	21	21	21	21	8	5	3	5	6	8	12	11	12	12	13
New Mexico.....	31	31	31	31	31	11	5	4	4	2	4	4	5	4	5	4
New York.....	62	62	62	62	62	38	24	22	28	31	32	35	38	37	34	35
North Carolina.....	100	27	34	44	48	72	66	59	47	49	50	48	49	49	49	49
North Dakota.....	53	53	53	53	53	33	5	4	2	6	2	2	1	1	1	1

